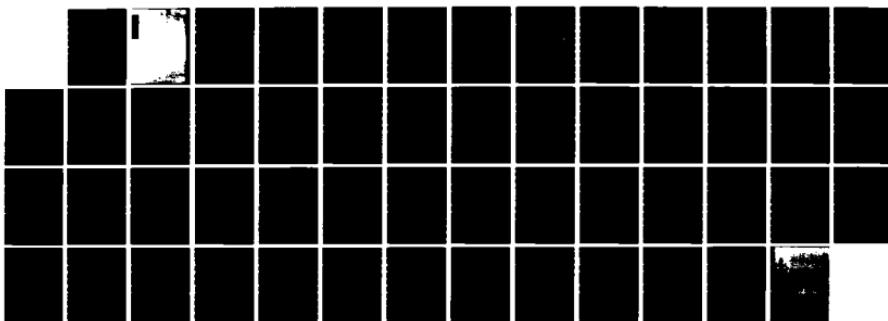


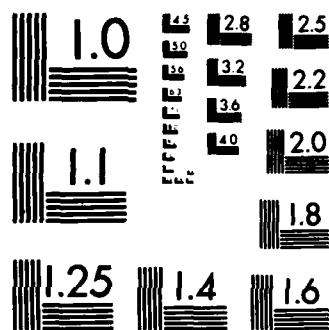
RD-R132 428 12831D LANCE MISSILE NUMBER 5337 ROUND NUMBER 389 MSL  
22 JUNE 1983 (U) ARMY ELECTRONICS RESEARCH AND  
DEVELOPMENT COMMAND WSMR NM RTM. D C KELLER JUN 83  
UNCLASSIFIED ERADCOM/ASL-DR-1303

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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)	<p>- Meteorological data gathered for the launching of the 12831D LANCE, Missile Number 5337, Round Number 389 MSL are presented in tabular form.</p>	

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## INTRODUCTION

12831D Lance, Missile Number 5337, Round Number 389-MSL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1730:04 MDT, 22 JUN 1983. The scheduled launch time was 1730 MDT.

## DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

## 1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ( $^{\circ}\text{C}$ ), relative humidity, dew point ( $^{\circ}\text{C}$ ), density ( $\text{gm/m}^3$ ), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

### b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at:

<u>SITE</u>	<u>ALTITUDE</u>	<u>TIME</u>
WSD	1080 meters	1718 MDT
WSD	3000 meters	1731 MDT

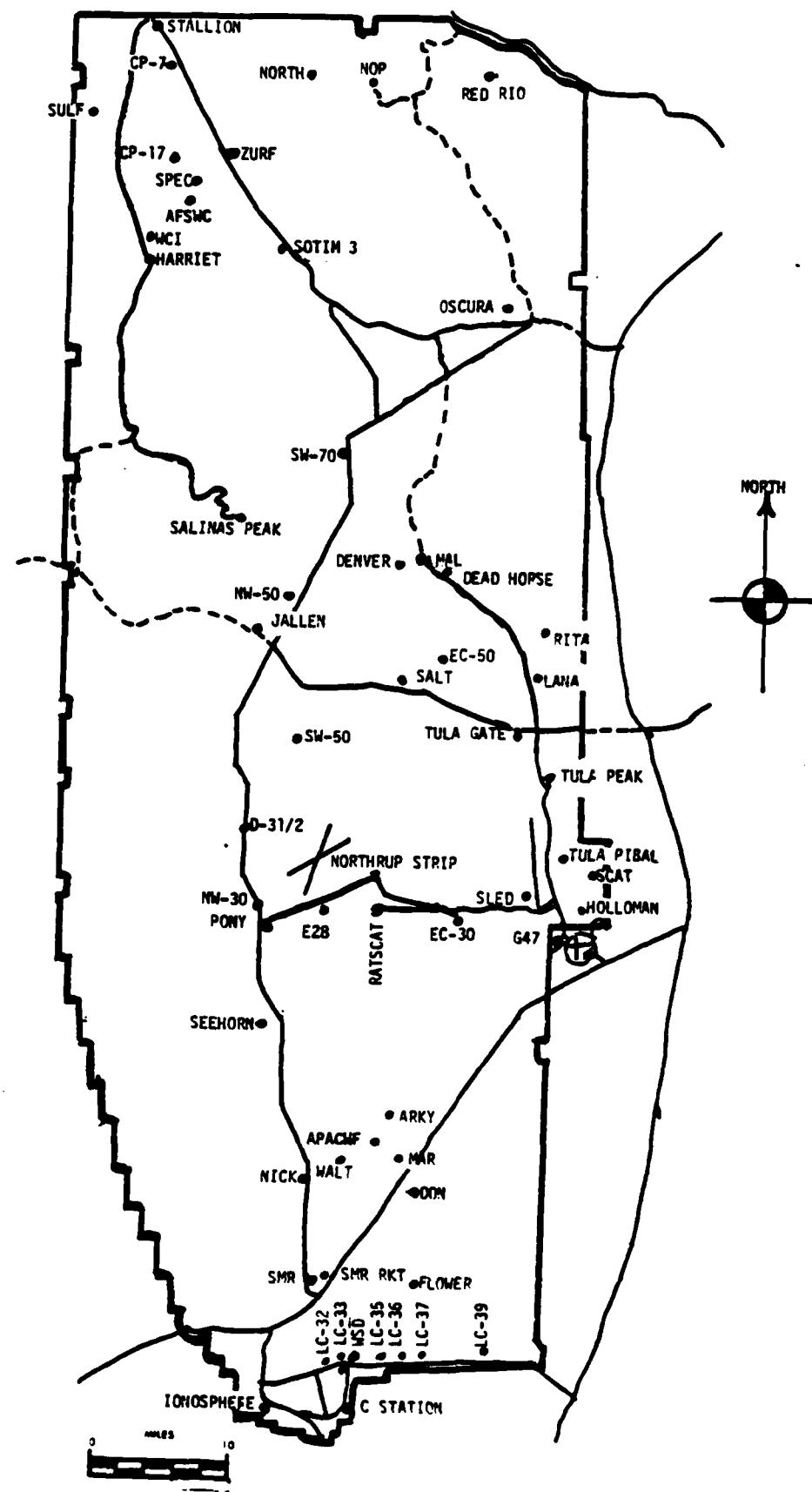
(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to high as possible:

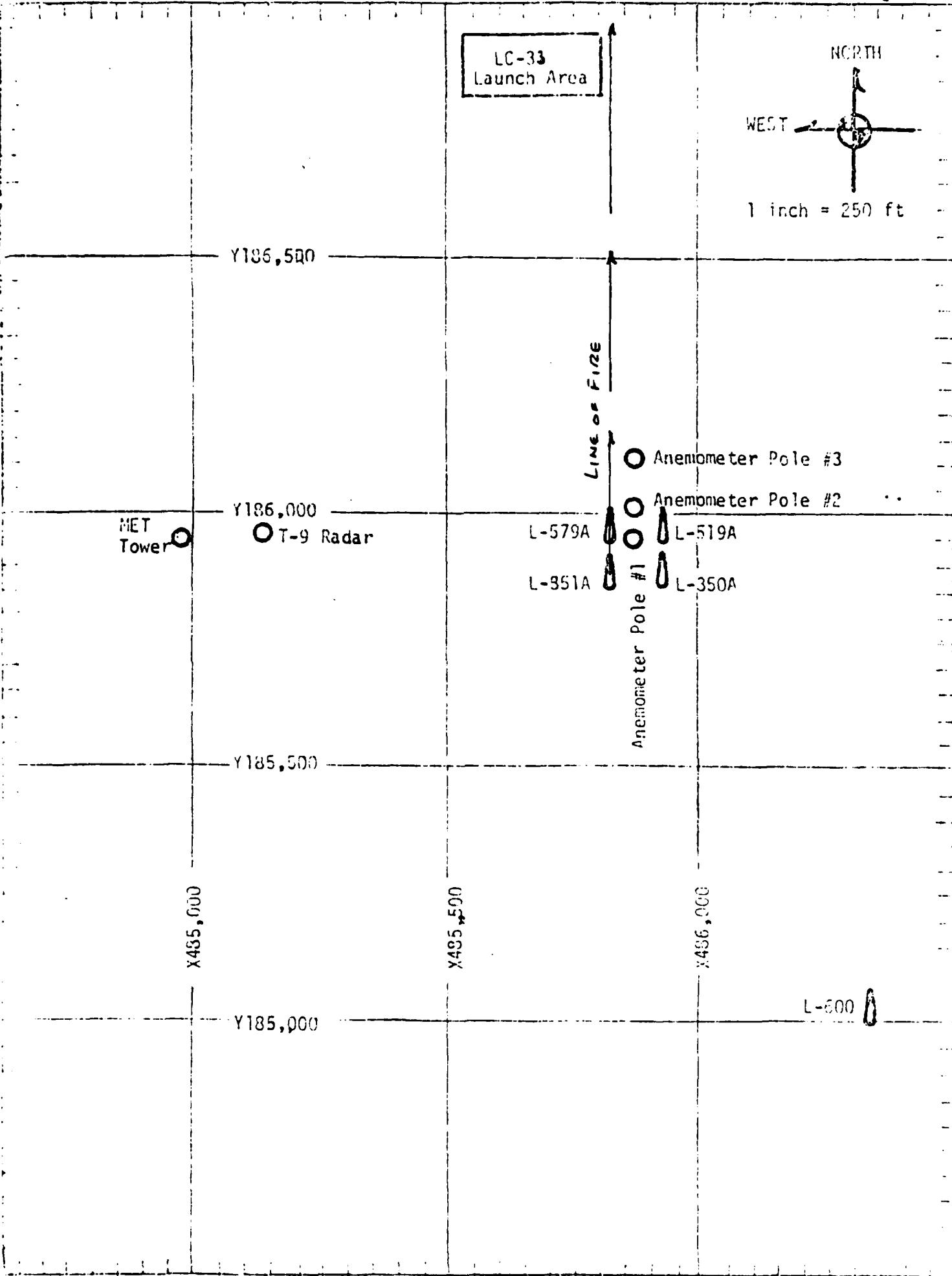
## SITE AND TIME

WSD	1730	MDT
JALLEN	1740	MDT
STALLION	1730	MDT

Acceleration Var.	
RT	100
DT	100
Up	100
Jump	100
<hr/>	
Run	100
Distance	100
<hr/>	
Dist	100
<b>A</b>	100

## WSMR METEOROLOGICAL SITES





## PROJECT SURFACE OBSERVATION

TABLE 1

DATE 22 JUN 83 YR

TABLE 1

TIME H D T	PRESSURE mbs	TEMPERATURE °F °C	DEW POINT °F °C	RELATIVE HUMIDITY %	DENSITY gm/m <sup>3</sup>	WIND DIRECTION deg	SPEED kts	CHARACTER	VISIBIL- ITY
1730	878.5		34.1	3.8	15		108	07	30

OBSTRUCTIONS TO VISIBILITY	CLOUDS				REMARKS
	1st LAYER	2nd LAYER	3rd LAYER		
	HGT	HT	HGT		
4	SC	6,000	4	AS 10,000	TCU E

PSYCHROMETRIC COMPUTATION						
TIME: MDT		1730				
DRY BULB TEMP.		34.1				
WET BULB TEMP.		17.0				
WET BULB DEPR.		17.1				
DEW POINT		3.8				
RELATIVE HUMID.		15				

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

DATE 22 JUN 83 1730 MDT

\*\*

POLE #1			POLE #2			POLE #3		
X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			X485,874.29 Y186.012.00 H4033.57 53.0 ft. AGL			X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	086	16	T-30	084	13	T-30	106	13
T-20	086	18	T-20	088	11	T-20	099	16
T-10	086	17	T-10	086	16	T-10	118	19
T0.0	086	23	T0.0	081	15	T0.0	098	21
T+10	086	17	T+10	089	15	T+10	099	20

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185.057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T30	109	12	T30	094	18
T20	107	10	T20	080	13
T10	105	08	T10	094	19
T0.0	108	07	T0.0	088	16
T+10	117	13	T+10	093	21

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T30	084	17	T30	MISG	17
T20	090	20	T20	MISG	20
T10	088	20	T10	MISG	25
T0.0	086	23	T0.0	MISG	19
T+10	080	21	T+10	MISG	24

\*\* Pole #1 Dirs. estimated

## PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM WSD DATE 22 JUN 83 TIME 1718 MDT

COORDINATES (WSTM) X= 488,852.29 Y= 184,982.45 H= 3993.75

NOTE: WIND DIRECTIONS ARE REFERENCED TO \_\_\_\_\_.

HEIGHTS ARE METERS AGL X OR FEET AGL \_\_\_\_\_.

TABLE 5

RELEASED FROM WSD

DATE 22 JUN 83

TIME 1731 MDT

COORDINATES (WSTM)    X= 488,852.29    Y= 184,982.45    H= 3993.75

NOTE: WIND DIRECTIONS ARE REFERENCED TO .

HEIGHTS ARE METERS AGL X OR FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	090	17
60	089	18
120	087	19
180	086	20
240	088	20
300	090	21
360	091	21
420	091	23
480	091	25
540	091	26
600	092	26
660	093	27
720	092	27
780	092	28
840	091	28
900	091	27
960	090	27
1020	090	25
1080	091	24
1140	091	22
1200	092	21
1260	092	19
1320	092	18
1380	091	17
1440	092	17
1500	095	16
1560	098	15
1620	104	13

## COMPUTER MET MESSAGE DATA

22 JUNE 1983

WSD	1730 MDT	JALLEN	1740 MDT	STALLION	1730 MDT
METCM1324064		METCM1324064		METCM1228067	
222350122877		222370124875		222350151850	
00142020	30820877	00213010	30710875	00267010	30420850
01140019	30660868	01225017	30800866	01296013	30230841
02139025	30310844	02246016	30390842	02310015	30040817
03167024	29890806	03282010	30010805	03341017	29710781
04162016	29420761	04286008	29550760	04374013	29250737
05230007	28980718	05292013	29090717	05330011	28810695
06339004	28530677	06259017	28630676	06240010	28460655
07384007	28080637	07251016	28170636	07222013	27980616
08397008	27640599	08222018	27710599	08214019	27530580
09405009	27230563	09210019	27240563	09201021	27060544
10399011	26300529	10192017	26810528	10188020	26650511
11367006	26460496	11165016	26480496	11168019	26330479
12123006	25980450	12163016	25920450	12160010	25830434
13204007	25220394	13207009	25310394	13384005	25150380
14264014	24500344	14206002	24520343	14371005	24390331
15299013	23660298	15288004	23690298	15404004	23560287
16273014	22860258	16270011	22840258	16334016	22690248
17321016	22260222	17266013	22070221	17313027	22020213
18347022	21720190	18332022	21730190	18331023	21770182
19345027	21540162	19344025	21510162	19331023	21660156
20279022	21120138	20287019	21180138	20298014	20990133
21303014	20670118	21286021	20610118	21301016	20660113
22277012	20540100	22307017	20590100	22307013	20640096
23240013	20910085	23281009	20670085	23280012	20850081
24200012	21060072	24217014	20990072	24218013	21120069
25179015	21010061	25190018	21030061	25166015	21260059
26156023	21390052	26154018	21380052	26161017	21490050

STATION ALTITUDE 3489.00 FEET MSL  
22 JUNE 03 1730 MDT  
ASSEMBLATION NO. 5110

SIGNIFICANT LEVEL DATA  
0173002030  
WHITE SANDS

GEODETIC COORDINATES  
32°40'04.3 LAT DEG  
106°37'03.3 LON DEG

TABLE 7

DETERMINED GEOMETRIC MILLIBARS MSL FEET	GEOMETRIC ALTITUDE FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
877.4	3989.0	33.3	6.7	22.0
856.0	4022.3	29.0	9.2	29.0
781.8	7135.9	21.8	5.3	34.0
766.0	10441.6	13.7	4.4	40.0
623.6	13337.7	5.9	-2.9	53.0
576.6	15671.6	-2.2	-6.0	65.0
555.9	16640.6	-2.1	-9.2	58.0
515.7	16684.0	-7.7	-13.3	64.0
500.0	19375.3	-8.2	-24.0	27.0
476.1	20619.0	-11.0	-24.1	53.0
466.5	21460.1	-12.0	-20.0	51.0
429.7	23189.4	-16.4	-17.9	88.0
426.1	23747.6	-17.7	-20.2	81.0
413.3	24149.4	-18.1	-25.3	53.0
406.0	24950.0	-20.6	-25.6	64.0
392.4	25416.8	-21.1	-25.4	68.0
385.3	25859.6	-22.3	-31.7	42.0
354.3	27669.5	-27.0	-38.3	33.0
346.0	28295.1	-27.4	-31.0	71.0
343.1	28630.9	-27.8	-39.6	31.0
306.0	31750.9	-36.5	-45.8	37.0
286.2	32020.6	-38.8	-49.2	32.0
267.0	34376.7	-42.9		
256.0	35927.2	-46.3		
206.0	40620.9	-54.2		
176.7	43220.4	-58.3		
162.9	44711.2	-57.3		
156.0	466627.4	-58.2		
129.3	49661.1	-65.1		
117.9	51510.1	-66.5		
107.0	54785.0	-68.2		
96.2	56833.6	-67.1		
86.3	57260.7	-64.4		
77.8	59030.9	-62.1		
76.0	61983.7	-62.6		
66.7	64078.8	-63.8		
56.0	68063.5	-57.6		
46.3	73383.8	-55.0		
35.2	77522.6	-50.8		

STATION ALTITUDE 3,989.00 FT. T MSL  
 22 JUNE 03 1730 MDT  
 ASCENSION NO. 314

UPPER AIR DATA  
 017300Z020305  
 WHITE SATELLUS

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

TABLE 8

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES, CENTIGRADE	DEWPOINT PERCENT	REL. HUM. CENTIGRADE	DENSITY GM/CMIC METER	SOUND KNOTS	WIND DIRECTION DEGREES(TD)	WIND SPEED KNOTS	INDEX OF REFRACTION
3909.0	877.4	33.3	80.7	22.0	992.6	683.6	80.0	20.0	1.000267
4000.0	877.1	33.2	80.7	22.1	992.4	683.6	80.1	20.1	1.000267
4500.0	862.3	30.9	90.1	25.0	982.6	681.1	82.6	22.3	1.000267
5000.0	847.7	28.8	90.1	29.2	973.1	678.7	85.0	24.6	1.000265
5500.0	833.2	27.3	80.3	30.2	961.3	676.9	86.8	26.9	1.000260
6000.0	818.8	25.8	70.5	31.2	949.7	675.2	88.3	29.3	1.000256
6500.0	804.8	24.3	60.7	32.3	930.2	673.4	89.7	27.4	1.000251
7000.0	791.0	22.8	50.8	33.3	920.9	671.7	91.3	23.5	1.000247
7500.0	777.2	21.4	50.0	34.3	915.4	670.0	93.0	19.8	1.000242
8000.0	763.5	20.1	40.3	35.3	903.4	668.5	94.5	16.2	1.000238
8500.0	750.1	18.0	30.9	36.2	891.6	666.9	97.6	13.2	1.000234
9000.0	735.8	17.5	20.7	37.2	879.6	665.4	104.0	10.7	1.000229
9500.0	723.9	16.2	10.9	38.2	860.4	663.9	112.9	8.4	1.000225
10000.0	711.1	14.9	1.1	39.1	857.1	662.3	126.0	6.3	1.000221
10500.0	696.5	13.5	0.3	40.3	845.9	660.8	148.1	4.9	1.000217
11000.0	682.8	12.2	-0.2	42.5	834.5	659.2	173.2	4.4	1.000214
11500.0	673.4	10.8	-7.7	44.8	823.3	657.6	198.0	4.8	1.000211
12000.0	661.2	9.5	-1.2	47.0	812.3	656.0	206.3	5.5	1.000207
12500.0	649.2	8.2	-1.8	49.2	801.5	654.4	215.9	6.3	1.000204
13000.0	637.4	6.8	-2.5	51.5	790.8	652.4	218.2	6.8	1.000201
13500.0	625.8	5.5	-3.1	53.8	780.1	651.2	219.7	7.1	1.000198
14000.0	614.1	4.2	-3.7	56.4	769.3	649.7	220.9	7.4	1.000194
14500.0	602.7	2.9	-4.3	59.0	750.6	648.1	221.9	7.7	1.000191
15000.0	591.5	1.6	-5.0	61.5	740.1	646.6	223.3	8.0	1.000188
15500.0	580.5	0.2	-5.7	64.1	737.8	645.0	225.9	8.5	1.000185
16000.0	569.6	-0.8	-7.1	62.6	727.0	643.0	228.2	9.0	1.000180
16500.0	558.9	-1.0	-8.6	59.0	716.0	642.4	227.9	9.6	1.000176
17000.0	549.2	-3.1	-9.9	59.1	705.6	640.9	226.9	10.6	1.000172
17500.0	537.7	-4.5	-10.9	60.5	695.9	639.2	225.0	11.0	1.000169
18000.0	527.5	-5.8	-11.9	62.0	686.1	637.5	221.2	10.6	1.000166
18500.0	517.4	-7.2	-12.9	63.5	676.6	635.9	217.0	10.1	1.000163
19000.0	507.4	-7.9	-17.2	47.1	665.7	634.8	211.5	8.1	1.000157
19500.0	497.6	-8.5	-21.0	27.6	654.5	634.0	202.6	6.3	1.000151
20000.0	487.9	-9.6	-21.9	30.0	644.4	632.7	191.4	3.4	1.000148
20500.0	476.3	-10.7	-26.0	32.4	634.6	631.3	121.3	1.3	1.000146
21000.0	464.0	-11.5	-22.0	41.1	625.6	630.5	64.8	2.9	1.000145
21500.0	452.8	-12.1	-17.9	51.9	612.9	629.8	56.2	5.0	1.000143
22000.0	450.7	-13.4	-19.0	62.6	603.6	620.5	60.1	6.2	1.000142
22500.0	441.7	-14.6	-18.3	73.2	594.5	626.8	73.8	6.5	1.000141
23000.0	432.0	-15.6	-19.0	83.9	585.6	625.2	85.6	7.0	1.000139

STATION ALTITUDE 3989.00 FT. T.L.S.  
22 JUNE 83 1730 MDT  
ASCENSION NO. 318

UPPER AIR DATA  
017300Z030  
WHITE SAILS

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

TABLE 8 CONT'D

GEOMETRIC PRESSURE	ALTITUDE METERS MSL FELL	ATM MILLIBARS MILLIBARS	TEMPERATURE AT DEW POINT DEGREE, CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CMIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	424.3	-17.1	-19.2	84.1	570.7	623.7	95.7	6.7	1.000136
24000.0	415.4	-18.0	-23.2	63.4	567.1	622.6	106.5	6.6	1.000132
24500.0	407.4	-19.2	-25.4	57.8	550.5	621.1	111.8	6.7	1.000129
25000.0	399.2	-20.7	-25.6	64.4	550.3	619.3	113.5	6.9	1.000127
25500.0	391.1	-21.3	-26.4	63.1	540.6	618.4	115.3	7.1	1.000125
26000.0	383.0	-22.6	-32.1	41.4	512.4	616.7	123.0	6.9	1.000121
26500.0	375.1	-23.8	-33.7	39.1	523.9	615.3	128.1	10.9	1.000119
27000.0	367.4	-25.0	-35.4	36.9	515.5	613.8	132.6	12.4	1.000117
27500.0	359.8	-26.1	-37.1	34.7	507.3	612.4	137.5	13.5	1.000115
28000.0	352.4	-27.1	-35.5	44.7	496.0	611.2	141.9	14.3	1.000113
28500.0	345.0	-27.6	-35.5	46.6	489.4	610.5	147.1	13.9	1.000111
29000.0	337.7	-28.8	-40.3	31.7	481.4	609.0	152.7	13.6	1.000108
29500.0	330.5	-30.2	-41.3	32.7	473.9	607.3	159.7	14.2	1.000107
30000.0	322.5	-31.6	-42.3	33.6	466.5	605.5	166.1	15.1	1.000105
30500.0	315.6	-33.0	-43.3	34.6	459.2	603.8	168.5	15.0	1.000103
31000.0	309.9	-34.4	-44.3	35.6	452.1	602.0	170.7	14.7	1.000101
31500.0	303.3	-35.8	-45.3	36.5	445.0	600.2	168.7	14.2	1.000100
32000.0	296.7	-37.0	-46.6	35.8	437.7	598.7	164.0	13.6	1.000098
32500.0	290.3	-38.1	-40.2	33.5	430.2	597.3	160.5	13.1	1.000096
33000.0	283.9	-39.3	-50.7	28.3**	422.9	595.8	158.6	13.1	1.000095
33500.0	277.7	-40.6	-55.5	18.0**	415.9	594.1	156.7	13.2	1.000093
34000.0	271.5	-41.9	-63.1	7.7**	409.0	592.4	156.0	13.3	1.000091
34500.0	265.5	-43.2			402.2	590.8	155.9	13.4	1.000090
35000.0	259.6	-44.4			395.4	589.3	155.4	13.4	1.000088
35500.0	253.7	-45.5			386.3	587.8	152.9	13.2	1.000087
36000.0	246.0	-46.6			381.3	586.4	150.2	13.1	1.000085
36500.0	242.3	-47.4			373.9	585.3	154.3	13.1	1.000083
37000.0	236.7	-48.2			360.7	584.3	160.5	13.2	1.000082
37500.0	231.3	-49.1			359.6	583.2	167.7	13.7	1.000080
38000.0	226.0	-49.9			352.6	582.1	176.3	15.2	1.000079
38500.0	220.6	-50.7			345.0	581.0	183.3	17.0	1.000077
39000.0	215.7	-51.5			339.1	580.0	186.7	18.3	1.000076
39500.0	210.8	-52.3			332.5	578.9	189.2	19.6	1.000074
40000.0	205.9	-53.2			326.1	577.4	191.3	20.8	1.000073
40500.0	201.2	-54.0			319.0	576.7	192.7	21.2	1.000071
41000.0	195.5	-54.9			313.4	575.7	194.0	21.6	1.000070
41500.0	191.8	-55.6			307.2	574.6	194.5	22.0	1.000068
42000.0	187.3	-56.4			301.0	573.0	194.4	22.2	1.000067
42500.0	182.9	-57.2			295.0	572.5	194.3	22.5	1.000066
43000.0	178.6	-58.0			289.1	571.5	193.3	23.3	1.000064

\*\* AT LEAST ONE SUMMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL  
22 JUNE 1953 1730 MDT  
ASCENSION NO. 31A

UPPER AIR DATA  
017300Z00  
WHITE SANDS

GEODETIC COORDINATES  
32°40'43" LAT LIG  
106°37'03" LON DEG

TABLE 8 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	INDEX OF REFRACTION	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	174.3	-58.1	..	202.5	571.3	196.3	24.1
44000.0	170.2	-57.0	..	275.4	571.6	196.7	24.9
44500.0	169.2	-57.5	..	260.5	572.0	196.2	25.5
45000.0	162.2	-57.3	..	261.0	572.3	195.8	26.1
45500.0	156.4	-57.6	..	255.9	572.0	193.1	25.8
46000.0	154.6	-57.9	..	250.2	571.6	186.9	24.2
46500.0	150.9	-58.1	..	244.5	571.3	179.9	23.0
47000.0	147.3	-59.0	..	239.7	570.0	172.7	22.2
47500.0	145.7	-60.2	..	235.1	569.5	165.9	21.9
48000.0	140.3	-61.3	..	230.7	567.0	159.0	21.9
48500.0	136.9	-62.5	..	226.3	566.5	155.4	21.7
49000.0	132.6	-63.6	..	222.0	564.0	157.7	20.8
49500.0	130.3	-64.7	..	217.8	562.4	160.2	20.0
50000.0	127.1	-65.4	..	213.1	561.6	162.5	18.8
50500.0	124.9	-65.7	..	209.3	561.1	164.3	17.0
51000.0	120.9	-66.1	..	205.5	560.6	166.5	15.2
51500.0	116.0	-66.6	..	199.6	560.0	168.0	13.6
52000.0	115.0	-66.8	..	194.2	559.7	166.9	12.5
52500.0	112.2	-67.0	..	189.6	559.3	165.6	11.4
53000.0	109.4	-67.3	..	185.1	559.0	164.2	10.6
53500.0	106.7	-67.5	..	180.7	558.6	162.8	10.6
54000.0	104.0	-67.6	..	176.5	558.3	161.3	10.6
54500.0	101.4	-68.1	..	172.3	557.9	158.5	10.7
55000.0	96.9	-68.1	..	168.1	557.9	153.2	11.0
55500.0	96.5	-67.8	..	163.7	558.2	148.3	11.5
56000.0	94.1	-67.5	..	159.4	558.6	143.5	11.8
56500.0	91.7	-67.3	..	155.2	559.0	138.4	11.8
57000.0	89.3	-66.0	..	150.5	560.0	133.4	11.9
57500.0	87.3	-64.2	..	145.6	565.2	129.7	12.0
58000.0	85.1	-63.7	..	141.0	563.0	127.4	12.0
58500.0	81.6	-62.3	..	137.9	564.4	125.1	12.3
59000.0	79.1	-62.4	..	134.3	566.0	123.9	12.4
59500.0	76.2	-62.1	..	130.7	566.0	123.2	12.4
60000.0	75.2	-62.3	..	127.4	565.9	122.6	12.5
60500.0	75.3	-62.3	..	124.4	566.0	122.7	12.3
61000.0	75.5	-62.4	..	121.4	566.0	122.9	12.1
61500.0	71.7	-62.5	..	118.5	565.4	122.9	12.0
62000.0	69.9	-62.6	..	115.7	565.0	120.6	12.0
62500.0	68.2	-62.8	..	113.0	565.0	118.7	12.0
63000.0	66.6	-63.0	..	110.4	564.7	115.6	12.4

STATION ALTITUDE 3989.00 FT., SL  
22 JUNE 03 1730 MDT  
ASCENSION NO. 316

UPPER AIR DATA  
013002030

WHITE STATUS

TABLE 8 CONT'D

GEODETIC COORDINATES  
32.40043 LAT DEG  
116.37033 LONG DEG

GEODETIC PRESSURE	TEMPERATURE	REL. HUM.	DENSITY	SPD OF	WIND DATA	INDEX
ALTITUDE	AIR PT. POINT	PERCENT	GRAD	WIND	DIRCTION	OF
MSL FFL	MILLIBARS	DEGREE	CENTIGRADE	MEFF	DEGREES (TN)	REFRACTION
63500.0	63.6	-63.2		107.0	564.4	111.3
64000.0	63.4	-63.4		105.3	564.2	107.5
64500.0	61.8	-63.6		102.6	563.9	103.1
65000.0	60.3	-63.6		100.3	563.9	99.1
65500.0	59.9	-62.9		97.6	564.9	95.7
66000.0	57.5	-62.1		94.9	565.9	93.6
66500.0	56.1	-61.4		92.3	567.0	91.7
67000.0	54.7	-60.6		89.7	568.0	90.2
67500.0	53.4	-59.9		87.3	569.0	89.3
68000.0	52.1	-59.1		84.9	570.0	88.5
68500.0	50.9	-58.3		82.5	571.0	89.8
69000.0	49.7	-57.7		80.3	571.4	92.3
69500.0	48.5	-57.4		78.3	572.2	94.7
70000.0	47.4	-57.1		76.4	572.6	94.9
70500.0	46.2	-56.4		74.5	573.0	94.8
71000.0	45.2	-56.5		72.6	573.5	94.1
71500.0	44.1	-56.2		70.6	573.9	89.9
72000.0	43.1	-55.9		69.0	574.3	85.3
72500.0	42.0	-55.5		67.3	574.7	83.0
73000.0	41.1	-55.2		65.6	575.1	83.8
73500.0	40.1	-54.3		64.0	575.6	84.6
74000.0	39.2	-54.4		62.4	576.2	87.3
74500.0	38.3	-53.9		60.8	576.9	90.6
75000.0	37.4	-53.4		59.2	577.6	
75500.0	36.5	-52.9		57.7	578.2	
76000.0	35.7	-52.3		56.3	578.9	
76500.0	34.8	-51.8		54.8	579.6	
77000.0	34.0	-51.3		53.4	580.2	
77500.0	33.2	-50.8		52.1	580.9	

STATION ALTITUDE 3989.00 FEET, SL  
REF ID: A3  
ASCENT, NO. 1A 1730 MDT

MANDATORY LEVELS  
017300Z050  
WHITE BANDS

GEODETIC COORDINATES  
32°49'04" LAT DEG  
106°39'33" LON DEG

TABLE 9

PRESSURE (TOP OF INSTRUMENT MILLIBARS)	FLET	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				AIR DEWPNT. DEGREES CENTIGRADE	DIRECTION DEGREES (TN) KNOTS
1050.0	4919.	29.0	90.2	29.	84.6 24.2
800.0	6672.	23.8	60.4	33.	90.2 26.0
750.0	8506.	18.8	30.5	36.	97.9 13.1
700.0	10431.	13.7	0.4	40.	145.4 5.0
650.0	12461.	8.2	-1.4	49.	215.5 6.3
600.0	14610.	2.5	-4.5	60.	222.2 7.8
550.0	16897.	-2.9	-9.0	59.	227.1 10.5
500.0	19348.	-7.2	-23.0	27.	205.5 6.7
450.0	22005.	-13.5	-18.4	63.	60.9 0.2
400.0	24908.	-20.6	-25.0	64.	113.3 0.9
350.0	28107.	-27.3	-32.8	59.	143.4 14.2
300.0	31607.	-36.5	-45.0	37.	166.8 13.9
250.0	35748.	-46.3			151.2 13.1
200.0	40528.	-54.2			192.9 21.3
175.0	43309.	-58.2			196.1 24.0
150.0	46510.	-58.2			178.3 22.8
125.0	50194.	-65.6			163.6 17.7
100.0	54614.	-68.2			155.7 10.8
80.0	59064.	-62.6			123.6 12.4
70.0	61769.	-62.6			121.0 12.0
60.0	64879.	-63.4			98.5 17.1
50.0	68603.	-57.8			91.5 25.3
40.0	73252.	-51.8			84.6 17.9

STATION ALTITUDE 4057409 MFT ET MSL  
22 JUNE 83  
ASCENSION NO. 90

SIGNIFICANT LEVEL DATA  
1730030090  
WALLEN

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

TABLE 10

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEW-POINT DEGREES CENTIGRADE	REL. HUM. PERCENT
875.3	4051.0	32.5	9.3	24.0
871.1	4193.4	34.0	3.7	15.0
861.5	4522.0	34.3	4.0	15.0
856.0	4916.2	30.3	3.4	18.0
797.8	6759.2	25.4	1.1	19.0
700.0	10461.4	15.1	-3.3	28.0
622.2	13687.4	6.1	-5.2	44.0
547.7	17066.0	-3.4	-6.6	67.0
522.7	18275.4	-6.3	-15.0	50.0
514.9	18662.0	-6.9	-11.6	69.0
506.0	19414.3	-8.3	-14.7	60.0
486.5	20164.0	-9.5	-29.9	17.0
461.5	21444.6	-12.6	-27.3	28.0
430.1	22686.0	-16.1	-24.3	49.0
436.1	22856.1	-15.7	-19.4	73.0
424.4	23297.8	-16.5	-19.4	78.0
406.0	24986.4	-19.4	-25.0	73.0
391.7	25490.9	-20.1	-24.0	71.0
384.5	25950.8	-21.1	-26.6	61.0
361.5	27306.1	-24.8	-27.8	76.0
306.0	31801.7	-36.0	-40.0	66.0
287.8	32747.0	-38.2	-40.9	75.0
285.6	32920.6	-39.0	-42.2	71.0
251.0	35879.6	-46.5		
216.8	38945.4	-53.8		
207.0	40645.4	-55.7		
186.5	42110.9	-56.1		
165.1	44668.9	-55.4		
156.3	45817.9	-56.4		
150.0	46677.1	-57.4		
125.1	50301.8	-66.3		
106.3	53250.7	-68.2		
106.0	54835.0	-66.9		
86.8	57654.5	-67.3		
70.0	61987.1	-62.4		
62.2	64387.9	-63.7		
56.0	68869.6	-58.3		
41.3	72850.2	-57.1		
36.0	79622.1	-52.1		
20.0	86465.5	-43.1		

STATION ALTITUDE 4051.00 FEET :SL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 90

SIGNIFICANT LEVEL DATA  
17300.00000  
JALLEN

TABLE 10 CONT'D

PRESSURE GEOMETRIC  
ALTITUDE  
MILLIBARS MSL FEET  
10.0 90039.4

TEMPERATURE  
AIR DEPOINT  
DEGREES CENTIGRADE  
-42.4

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

STATION ALTITUDE 4051.00 FEET MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
17300300090  
JALLEN

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON, DEG

GEOMETRIC PRESSURE  
ALTITUDE MILLIBARS  
MSL FEET

AIR  
TEMPERATURE  
DEGREES, CENTIGRADE

TEMPPOINT  
PERCENT

REL.HUM.  
PERCENT

DENSITY  
GM/CUBIC  
METER

SOUND  
KNOTS

WIND DATA  
DIRECTION  
DEGREES(TN)

SPEED  
KNOTS

INDEX  
OF  
REFRACTION

4051.0 875.3 32.5 9.3 24.0 992.6 682.8 120.0 9.9 1.000269  
4100.0 873.9 33.0 7.7 20.9 989.8 683.2 121.0 10.0 1.000263  
4200.0 870.9 34.0 3.7 15.0 984.3 684.0 122.9 10.0 1.000251  
4300.0 868.0 34.1 3.8 15.0 980.7 684.1 124.8 10.2 1.000251  
4400.0 865.1 34.2 3.9 15.0 977.1 684.2 126.7 10.3 1.000250  
4500.0 862.1 34.3 3.9 15.0 973.5 684.3 128.5 10.4 1.000249  
4600.0 859.2 33.5 3.9 15.6 972.6 685.4 130.3 10.6 1.000249  
4700.0 856.3 32.5 3.8 16.3 972.5 682.3 132.0 10.7 1.000249  
4800.0 853.4 31.5 3.6 17.1 972.5 681.2 135.7 10.9 1.000249  
4900.0 850.5 30.5 3.4 17.9 972.4 680.0 135.4 11.0 1.000249  
5000.0 847.6 30.1 3.2 16.0 970.4 679.6 136.9 11.2 1.000248  
5100.0 844.7 29.8 3.0 18.1 968.0 679.3 138.5 11.4 1.000247  
5200.0 841.8 29.6 2.9 18.2 965.5 676.9 139.9 11.6 1.000246  
5300.0 839.9 29.3 2.7 18.2 963.1 678.6 141.4 11.8 1.000245  
5400.0 836.0 29.0 2.5 18.3 960.6 678.3 142.7 12.0 1.000244  
5500.0 833.1 28.8 2.3 18.3 958.2 676.0 144.1 12.2 1.000244  
5600.0 830.3 28.5 2.2 18.4 955.8 677.7 145.4 12.4 1.000243  
5700.0 827.4 28.2 2.0 18.4 953.4 677.4 146.6 12.7 1.000242  
5800.0 824.6 28.0 1.8 18.5 951.0 677.1 147.4 12.9 1.000241  
5900.0 821.8 27.7 1.6 18.5 948.6 676.4 148.8 12.6 1.000240  
6000.0 819.9 27.4 1.5 18.6 946.2 676.5 149.6 12.3 1.000239  
6100.0 817.1 27.2 1.5 18.6 943.8 676.2 150.9 12.0 1.000239  
6200.0 814.3 26.9 1.1 18.7 941.4 675.9 152.0 11.6 1.000238  
6300.0 810.5 26.6 0.9 18.8 939.0 675.5 153.2 11.3 1.000237  
6400.0 807.7 26.4 0.8 18.8 936.7 675.2 154.4 11.0 1.000236  
6500.0 805.0 26.1 0.6 18.9 934.3 674.9 155.8 10.7 1.000235  
6600.0 802.2 25.8 0.4 18.9 931.9 674.6 157.2 10.4 1.000234  
6700.0 799.4 25.6 0.2 19.0 929.6 674.3 158.7 10.1 1.000234  
6800.0 796.7 25.3 0.1 19.1 927.2 674.0 160.0 9.8 1.000233  
6900.0 793.8 25.0 0.0 19.3 924.8 673.7 160.4 9.6 1.000232  
7000.0 791.0 24.7 0.0 19.6 922.4 673.4 160.8 9.5 1.000232  
7100.0 788.3 24.5 0.1 19.6 920.0 673.0 161.2 9.3 1.000231  
7200.0 785.5 24.2 0.1 20.1 917.6 672.7 161.6 9.1 1.000230  
7300.0 782.7 23.9 0.2 20.3 915.3 672.4 162.1 9.0 1.000230  
7400.0 779.9 23.6 0.3 20.6 912.9 672.1 162.5 8.8 1.000229  
7500.0 777.2 23.3 0.3 20.8 910.5 671.8 163.0 8.6 1.000229  
7600.0 774.5 23.1 0.4 21.0 908.2 671.5 163.5 8.5 1.000228  
7700.0 771.7 22.8 0.5 21.3 905.8 671.2 164.0 8.3 1.000227  
7800.0 769.0 22.5 0.5 21.5 903.5 670.8 164.5 8.1 1.000227  
7900.0 766.3 22.2 0.6 21.8 901.2 670.5 164.5 8.2 1.000226

TABLE 11

STATION ALTITUDE 451.00 FT. T + SL  
22 JUN 83 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
1730030090  
JALLEH

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEE.,	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES, CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup>	SP. HEAT OF METER	SOUND SPEED KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
8000.0	763.6	21.9	-7	22.0	898.8	670.2	164.2	8.4	1.000226
8100.0	760.9	21.7	-8	22.3	896.5	669.9	164.0	8.5	1.000225
8200.0	758.2	21.4	-9	22.7	894.2	669.6	163.8	8.6	1.000224
8300.0	755.5	21.1	-1.0	23.0	892.9	668.4	163.4	8.9	1.000223
8400.0	752.9	20.8	-1.1	23.2	891.6	668.2	163.2	9.0	1.000222
8500.0	750.2	20.6	-1.2	23.5	890.3	668.0	163.0	9.2	1.000222
8600.0	747.6	20.3	-1.3	23.7	889.0	668.0	162.8	9.3	1.000221
8700.0	744.9	20.0	-1.4	24.0	888.0	667.6	162.6	9.4	1.000221
8800.0	742.3	19.7	-1.5	24.2	887.2	667.3	162.5	9.8	1.000220
8900.0	739.7	19.4	-1.6	24.4	886.0	667.0	162.3	10.1	1.000219
9000.0	737.1	19.2	-1.7	24.7	885.7	666.7	162.2	10.4	1.000219
9100.0	734.5	18.9	-1.8	24.9	884.5	666.4	162.1	10.7	1.000218
9200.0	731.9	18.6	-1.9	25.2	883.2	666.0	162.0	11.0	1.000217
9300.0	729.3	18.3	-1.9	25.4	882.0	665.7	161.9	11.3	1.000217
9400.0	726.7	18.1	-2.0	25.7	880.8	665.4	161.8	11.6	1.000216
9500.0	724.2	17.8	-2.1	25.9	882.0	665.1	161.7	11.9	1.000215
9600.0	721.6	17.5	-2.2	26.1	880.4	664.7	161.6	12.3	1.000215
9700.0	719.1	17.2	-2.4	26.4	879.2	664.4	161.1	12.6	1.000214
9800.0	716.5	16.9	-2.5	26.6	878.0	664.1	160.0	12.8	1.000214
9900.0	714.0	16.7	-2.6	26.6	876.8	663.8	159.0	13.1	1.000213
10000.0	711.5	16.4	-2.7	26.9	875.5	663.5	158.0	13.4	1.000212
10100.0	709.0	16.1	-2.8	27.1	874.2	663.2	157.0	13.7	1.000212
10200.0	706.5	15.8	-2.9	27.4	873.0	663.1	156.1	14.0	1.000211
10300.0	704.0	15.5	-3.1	27.6	871.7	662.8	155.2	14.3	1.000210
10400.0	701.5	15.3	-3.2	27.9	870.4	662.5	152.0	15.3	1.000209
10500.0	699.0	15.0	-3.3	28.2	869.1	662.2	154.4	14.6	1.000208
10600.0	696.5	14.7	-3.3	28.7	868.0	661.8	153.6	14.9	1.000208
10700.0	693.9	14.4	-3.3	29.2	867.4	661.5	152.8	15.1	1.000207
10800.0	691.4	14.2	-3.4	29.7	866.1	661.2	152.0	15.3	1.000206
10900.0	688.9	13.9	-3.4	30.2	865.5	660.9	151.3	15.4	1.000206
11000.0	686.4	13.6	-3.5	30.7	864.1	660.6	150.6	15.6	1.000207
11100.0	683.9	13.3	-3.4	31.2	862.9	660.2	149.9	15.8	1.000207
11200.0	681.4	13.0	-3.4	31.7	862.7	659.9	149.2	16.0	1.000206
11300.0	678.9	12.8	-3.4	32.2	862.5	659.6	148.5	16.1	1.000206
11400.0	676.4	12.5	-3.5	32.7	862.0	659.3	147.8	16.3	1.000205
11500.0	673.9	12.2	-3.5	33.2	861.6	659.0	147.3	16.4	1.000205
11600.0	671.5	11.9	-3.6	33.6	861.4	658.6	147.1	16.4	1.000204
11700.0	669.0	11.6	-3.6	34.1	861.2	658.3	146.8	16.4	1.000204
11800.0	666.6	11.4	-3.7	34.6	861.0	658.0	146.6	16.4	1.000203
11900.0	664.2	11.1	-3.7	35.1	861.9	657.7	146.3	16.4	1.000203

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LONG DEG

STATION ALTITUDE 4651.00 FT. T MSL  
22 JUNE 63 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
JALLEN

GEODETIC COORDINATES  
33° 16' 712 LAT DEG  
106° 49' 511 LON DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	ALTIMETER DEGREE, CENTIGRABE	TEMPERATURE PERCENT	WIND SPEED METER PER SEC	WIND DIRECTION, DEGREES KNOTS	WIND DATA INDEX
12000.0	661.0	10.0	-3.0	35.6	809.7	657.3
12100.0	659.3	10.5	-3.0	36.1	807.6	657.0
12200.0	656.9	10.2	-3.9	36.6	805.6	145.9
12300.0	654.5	10.0	-4.0	37.1	803.3	145.6
12400.0	652.2	9.7	-4.1	37.6	801.1	145.4
12500.0	649.8	9.4	-4.1	38.1	799.0	145.2
12600.0	647.4	9.1	-4.2	38.6	796.9	143.9
12700.0	645.0	8.9	-4.3	39.1	794.8	142.7
12800.0	642.7	8.6	-4.4	39.6	792.7	140.4
12900.0	640.4	8.3	-4.5	40.1	790.6	139.0
13000.0	638.0	8.0	-4.5	40.6	788.5	137.7
13100.0	635.7	7.7	-4.6	41.1	786.4	136.5
13200.0	633.4	7.5	-4.7	41.6	784.3	135.3
13300.0	631.1	7.2	-4.8	42.1	782.2	134.1
13400.0	628.8	6.9	-4.9	42.6	780.1	133.0
13500.0	626.5	6.6	-5.0	43.1	778.1	132.3
13600.0	624.2	6.3	-5.1	43.6	776.0	131.5
13700.0	621.9	6.1	-5.2	44.1	774.0	130.8
13800.0	619.6	5.8	-5.3	44.6	771.0	130.1
13900.0	617.2	5.5	-5.3	45.4	769.7	129.3
14000.0	614.9	5.2	-5.4	46.1	767.6	128.6
14100.0	612.6	4.9	-5.5	46.8	765.5	127.9
14200.0	610.3	4.7	-5.5	47.5	763.4	127.1
14300.0	608.0	4.4	-5.6	48.2	761.3	126.4
14400.0	605.7	4.1	-5.7	48.9	759.2	124.9
14500.0	603.4	3.9	-5.6	49.5	757.1	124.2
14600.0	601.1	3.5	-5.8	50.2	755.0	123.5
14700.0	598.9	3.3	-5.9	50.9	752.9	122.8
14800.0	596.6	3.0	-6.0	51.6	750.8	122.1
14900.0	594.4	2.7	-6.1	52.3	748.8	121.4
15000.0	592.1	2.4	-6.2	52.9	746.7	120.7
15100.0	589.9	2.1	-6.3	53.6	744.7	120.0
15200.0	587.7	1.8	-6.4	54.3	742.6	119.3
15300.0	585.5	1.6	-6.5	55.0	740.6	118.6
15400.0	583.3	1.3	-6.6	55.7	738.6	117.9
15500.0	581.1	1.0	-6.7	56.3	736.6	117.2
15600.0	578.9	.7	-6.8	57.0	734.5	116.5
15700.0	576.7	.4	-6.9	57.7	732.5	115.8
15800.0	574.5	.2	-7.0	58.4	730.5	115.1
15900.0	572.3		-7.1	59.1	728.5	114.5

STATION ALTITUDE 4051.00 FT. T MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 96

UPPER ALTAIA  
1730030090

GEODETIC COORDINATES  
33° 14' 57.12 LAT DEG  
106° 49' 51.11 LONG DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE <sup>o</sup>	DAMPNESS PERCENT	REL. HUM. CENTIGRADE	WIND DATA		INDEX OF REFRACTION
					SPEED OF WIND KILOMETERS PER HOUR	WIND DIRECTION DEGREES (TN)	
16000.0	570.2	-4	-7.3	59.7	726.6	644.1	119.4
16100.0	569.9	-7.7	-7.4	60.4	724.6	643.6	118.0
16200.0	569.8	-1.0	-7.5	61.1	722.6	643.5	118.6
16300.0	569.8	-1.2	-7.6	61.0	720.6	643.1	118.2
16400.0	561.6	-1.5	-7.7	62.5	718.7	642.5	117.8
16500.0	559.5	-1.8	-7.9	63.1	716.7	642.1	117.4
16600.0	557.4	-2.1	-8.0	63.8	714.8	642.1	117.0
16700.0	555.3	-2.4	-8.1	64.5	712.8	641.8	116.5
16800.0	553.2	-2.7	-8.3	65.2	710.9	641.5	116.1
16900.0	551.1	-2.9	-8.4	65.9	709.0	641.1	115.7
17000.0	549.1	-3.2	-8.5	66.6	707.0	640.4	115.2
17100.0	547.0	-3.5	-8.8	66.5	705.1	640.4	114.0
17200.0	544.9	-3.7	-9.3	65.1	703.0	640.1	114.3
17300.0	542.8	-4.0	-9.8	63.7	701.0	639.8	113.9
17400.0	540.7	-4.2	-10.3	62.3	699.0	639.5	113.3
17500.0	538.6	-4.4	-10.4	60.9	696.9	639.2	112.5
17600.0	536.5	-4.7	-11.3	59.5	694.9	638.9	111.7
17700.0	534.4	-4.9	-11.9	58.1	692.9	638.6	110.9
17800.0	532.4	-5.2	-12.4	56.7	690.9	638.3	110.0
17900.0	530.3	-5.4	-12.9	55.3	688.9	638.0	109.2
18000.0	528.2	-5.6	-13.5	53.9	686.9	637.7	108.3
18100.0	526.3	-5.9	-14.0	52.5	684.9	637.4	107.4
18200.0	524.2	-6.1	-14.6	51.1	682.9	637.1	106.5
18300.0	522.2	-6.3	-14.7	51.2	680.9	636.8	105.5
18400.0	520.2	-6.5	-13.8	56.1	678.9	636.7	104.6
18500.0	518.2	-6.6	-12.9	61.0	676.2	636.5	103.6
18600.0	516.1	-6.8	-12.1	66.0	673.9	636.4	102.7
18700.0	514.1	-7.0	-11.3	68.5	671.7	636.2	101.7
18800.0	512.1	-7.2	-12.2	67.3	669.5	635.9	100.7
18900.0	510.1	-7.3	-12.0	66.2	667.4	635.7	100.0
19000.0	508.2	-7.5	-13.0	65.0	665.3	635.5	99.7
19100.0	506.2	-7.7	-13.4	63.8	663.2	635.2	97.7
19200.0	504.2	-7.9	-13.8	62.6	661.1	635.0	96.7
19300.0	502.2	-8.1	-14.2	61.4	659.1	634.7	95.7
19400.0	500.3	-8.3	-14.6	60.2	657.0	634.0	94.7
19500.0	498.3	-8.4	-15.8	55.1	654.9	634.3	94.1
19600.0	496.4	-8.6	-17.3	49.3	652.8	634.0	93.5
19700.0	494.4	-8.8	-16.9	43.6	650.8	633.8	93.0
19800.0	492.5	-8.9	-20.6	37.9	648.7	633.6	92.6
19900.0	490.6	-9.1	-22.6	32.1	646.7	633.3	92.1

STATION ALTITUDE 4051.00 FT. T MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 96

UPPER AIR DATA  
1730030090  
JALLEN

GEOMETRIC ALTITUDE MSL  
IN FEET  
MILLIARCS DEGREES, CENTIGRADE

GEOMETRIC ALTITUDE IN FEET	PRESSURE IN MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES, CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CMIC METRIC	SP-FD OF SOUND KNOTS	WIND DATA WINGRESS(FTN) WIND INJECTION KNOTS	WIND SPEED KNOTS	INDEX OF REFRACTION
20000.0	486.9	-9.4	-25.0	26.4	644.6	633.8	91.7	17.4
20200.0	484.8	-9.6	-29.8	20.7	642.6	632.6	90.8	17.7
20300.0	482.9	-9.8	-29.5	16.2	638.6	632.3	90.4	18.0
20400.0	481.0	-10.1	-29.2	19.0	636.6	632.0	90.0	18.3
20500.0	479.1	-10.3	-29.0	19.9	634.7	631.7	90.5	18.5
20600.0	477.2	-10.6	-28.7	20.7	632.8	631.4	91.0	18.6
20700.0	475.3	-10.8	-28.5	21.6	630.8	631.2	91.5	18.8
20800.0	473.4	-11.0	-28.3	22.5	628.9	630.9	92.0	18.9
20900.0	471.6	-11.3	-28.1	23.3	627.0	630.6	92.5	19.1
21000.0	469.7	-11.5	-27.9	24.2	625.1	630.3	92.9	19.3
21100.0	467.8	-11.8	-27.7	25.0	623.2	630.0	93.4	19.4
21200.0	466.0	-12.0	-27.6	25.9	621.3	629.7	93.8	19.6
21300.0	464.2	-12.2	-27.4	26.8	619.4	629.4	94.3	19.8
21400.0	462.3	-12.5	-27.3	27.6	617.6	629.1	94.6	19.7
21500.0	460.5	-12.8	-27.9	28.9	615.7	628.4	94.9	19.4
21600.0	458.6	-13.0	-26.7	30.6	613.9	628.5	95.2	19.2
21700.0	456.8	-13.3	-26.3	32.3	612.1	628.2	95.5	18.9
21800.0	455.0	-13.6	-26.0	34.0	610.3	627.8	95.8	18.6
21900.0	453.2	-13.9	-25.8	35.7	608.5	627.5	96.2	18.4
22000.0	451.3	-14.2	-25.5	37.4	606.7	627.1	96.5	18.1
22100.0	449.5	-14.4	-25.3	39.1	604.9	626.8	96.8	17.8
22200.0	447.7	-14.7	-25.1	40.8	603.2	626.5	97.2	17.6
22300.0	445.9	-15.0	-24.9	42.5	601.4	626.1	97.6	17.3
22400.0	444.2	-15.3	-24.7	44.2	599.6	625.8	97.4	16.9
22500.0	442.4	-15.6	-24.6	45.9	597.9	625.5	97.2	16.5
22600.0	440.6	-15.9	-24.4	47.5	596.1	625.1	97.0	16.1
22700.0	438.9	-16.1	-23.9	51.0	594.2	624.9	96.8	15.7
22800.0	437.1	-15.8	-20.9	65.1	591.2	625.2	96.6	15.3
22900.0	435.3	-15.8	-19.4	73.5	588.6	625.3	96.3	14.9
23000.0	433.6	-16.0	-19.4	74.6	586.6	625.1	96.1	14.5
23100.0	431.8	-16.1	-19.4	75.8	584.7	624.9	95.8	14.1
23200.0	430.1	-16.3	-19.4	76.9	582.7	624.7	95.5	13.8
23300.0	428.4	-16.5	-19.4	78.0	580.6	624.5	95.8	13.4
23400.0	426.6	-16.7	-19.6	77.7	578.6	624.3	96.6	13.1
23500.0	424.9	-16.8	-19.8	77.4	576.9	624.0	97.5	12.8
23600.0	423.2	-17.0	-20.1	77.1	574.9	623.8	98.4	12.5
23700.0	421.5	-17.2	-20.3	76.8	573.0	623.6	99.4	12.2
23800.0	419.7	-17.4	-20.5	76.5	571.1	623.4	100.4	11.9
23900.0	418.0	-17.5	-20.7	76.2	569.1	623.2	101.5	11.6

TABLE 11 CONT'D

GEODETIC COORDINATES  
33°16'12" LAT DEG  
106°49'51" LONG DEG

STATION ALTITUDE 4051.00 FT, T MSL  
22 JUNE 63 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
1730030090  
JALLEN

GEODETIC COORDINATES  
33.1671° LAT DEG  
106.4951° LON DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES, CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CU.M	SPED. OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
24000.0	4160.4	-17.7 -20.9	75.9	567.2	623.0	102.6	11.3
24100.0	4140.7	-17.9 -21.1	75.6	565.3	622.8	103.6	11.0
24200.0	4130.0	-18.0 -21.3	75.3	563.4	622.5	105.1	10.7
24300.0	4111.3	-18.2 -21.5	75.0	561.5	622.3	106.0	10.4
24400.0	4092.6	-18.4 -21.7	74.7	559.7	622.1	107.9	10.2
24500.0	4080.0	-18.6 -22.0	74.4	557.7	621.9	107.9	9.9
24600.0	4060.3	-18.7 -22.2	74.1	555.8	621.7	108.9	9.7
24700.0	4040.7	-18.9 -22.4	73.8	554.0	621.5	109.9	9.5
24800.0	4020.0	-19.1 -22.6	73.6	552.1	621.3	111.0	9.2
24900.0	3990.4	-19.3 -22.8	73.3	550.3	621.0	113.2	8.9
25000.0	3990.8	-19.4 -23.0	73.0	548.4	620.8	113.4	8.7
25100.0	3990.1	-19.6 -23.2	72.6	546.4	620.7	114.6	8.5
25200.0	3960.5	-19.7 -23.4	72.2	544.5	620.5	116.0	8.3
25300.0	3940.9	-19.8 -23.6	71.8	542.6	620.3	117.1	8.1
25400.0	3930.3	-20.0 -23.8	71.4	540.7	620.2	117.8	7.8
25500.0	3910.7	-20.1 -24.0	71.0	538.8	620.0	118.5	7.5
25600.0	3900.1	-20.3 -24.2	68.8	537.0	619.7	119.3	7.2
25700.0	3880.5	-20.5 -24.4	66.5	535.3	619.4	120.2	6.9
25800.0	3860.9	-20.6 -25.1	64.3	533.0	619.1	121.1	6.7
25900.0	3850.3	-21.0 -26.3	62.1	531.9	618.9	122.1	6.4
26000.0	3850.7	-21.2 -26.9	61.5	530.3	618.5	123.2	6.1
26100.0	3820.1	-21.5 -26.7	62.7	528.6	618.2	124.2	5.8
26200.0	3800.5	-21.8 -26.8	63.8	527.0	617.9	125.8	5.6
26300.0	3790.0	-22.1 -26.8	64.9	525.4	617.5	127.2	5.3
26400.0	3771.4	-22.3 -26.9	66.0	523.8	617.2	127.4	5.0
26500.0	3750.8	-22.6 -27.0	67.1	522.2	616.9	127.6	4.8
26600.0	3740.3	-22.9 -27.1	68.2	520.6	616.5	127.8	4.5
26700.0	3720.7	-23.1 -27.2	69.3	519.1	616.2	128.0	4.2
26800.0	3711.2	-23.4 -27.3	70.4	517.5	615.9	128.2	4.0
26900.0	3694.7	-23.7 -27.4	71.5	516.9	615.5	128.5	3.7
27000.0	3680.1	-24.0 -27.5	72.6	514.3	615.2	128.8	3.5
27100.0	3660.6	-24.2 -27.6	73.7	512.8	614.8	129.1	3.2
27200.0	3650.1	-24.5 -27.7	74.0	511.2	614.5	129.5	2.9
27300.0	3630.6	-24.8 -27.8	75.9	509.7	614.2	130.0	2.7
27400.0	3620.0	-25.0 -28.0	75.8	508.0	613.8	129.8	2.5
27500.0	3600.5	-25.3 -28.3	75.6	506.4	613.5	128.7	2.4
27600.0	3590.0	-25.5 -28.5	75.3	504.7	613.2	127.6	2.4
27700.0	3574.4	-25.8 -28.9	75.1	503.1	612.9	126.3	2.3
27800.0	3550.9	-26.0 -29.1	74.9	501.4	612.6	125.0	2.2
27900.0	3544.4	-26.3 -29.4	74.7	499.8	612.3	123.7	2.2

STATION ALTITUDE 4,651.00 FT. T. MSL  
22 JUNE 03 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
1750030040  
JALLEN

GEODETIC COORDINATES  
33°16'12" LAT DEG  
106°49'51" LONG DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	SP. HEAT GM/HR/deg	SOUND KNOTS	WIND DATA DEGREES NORTH	WIND SPEED KNOTS	INDEX OF REFRACTION
28000.0	352.9	-26.5	-29.7	74.5	490.2	612.0	122.2	2.1
28100.0	351.4	-26.8	-30.0	74.2	490.6	611.7	120.7	2.1
28200.0	349.9	-27.0	-30.2	74.0	490.0	611.3	119.1	2.0
28300.0	348.4	-27.3	-30.5	73.8	493.4	611.0	117.4	2.0
28400.0	346.9	-27.5	-30.8	73.6	491.8	610.7	116.1	1.9
28500.0	345.4	-27.8	-31.0	73.3	490.2	610.4	116.3	2.0
28600.0	344.0	-28.0	-31.3	73.1	480.0	610.1	116.4	2.0
28700.0	342.5	-28.3	-31.6	72.9	487.0	609.8	116.5	2.0
28800.0	341.0	-28.5	-31.9	72.7	485.4	609.5	116.7	2.1
28900.0	339.6	-28.8	-32.1	72.5	483.9	609.2	116.8	2.1
29000.0	338.1	-29.0	-32.4	72.2	482.3	608.8	116.9	2.2
29100.0	336.7	-29.3	-32.7	72.0	480.7	608.5	117.0	2.2
29200.0	335.3	-29.5	-33.0	71.8	479.2	608.2	117.1	2.2
29300.0	333.8	-29.8	-33.2	71.6	477.6	607.9	117.2	2.3
29400.0	332.4	-30.0	-33.5	71.3	476.1	607.6	117.3	2.3
29500.0	331.0	-30.3	-33.8	71.1	474.5	607.3	118.5	2.4
29600.0	329.6	-30.5	-34.0	70.9	473.0	607.0	119.9	2.4
29700.0	328.2	-30.8	-34.3	70.7	471.5	606.6	121.3	2.5
29800.0	326.8	-31.0	-34.6	70.5	470.0	606.3	122.6	2.5
29900.0	325.4	-31.3	-34.9	70.2	468.4	606.0	123.6	2.6
30000.0	324.0	-31.5	-35.1	70.0	466.9	605.7	125.0	2.6
30100.0	322.6	-31.6	-35.4	69.8	465.4	605.4	126.1	2.7
30200.0	321.2	-32.0	-35.7	69.6	463.9	605.1	127.2	2.7
30300.0	319.9	-32.3	-35.9	69.3	462.4	604.8	128.3	2.8
30400.0	318.5	-32.5	-36.2	69.1	460.9	604.4	129.3	2.8
30500.0	317.2	-32.8	-36.5	68.9	459.5	604.1	131.6	2.9
30600.0	315.8	-33.0	-36.8	68.7	458.0	603.8	136.0	3.0
30700.0	314.5	-33.3	-37.0	68.5	456.5	603.5	140.2	3.1
30800.0	313.1	-33.5	-37.3	68.2	455.0	603.2	144.1	3.2
30900.0	311.8	-33.6	-37.6	68.0	453.6	602.9	147.8	3.3
31000.0	310.4	-34.0	-37.9	67.8	452.1	602.5	151.1	3.4
31100.0	309.1	-34.3	-38.1	67.6	450.6	602.2	154.3	3.6
31200.0	307.8	-34.5	-38.4	67.3	449.2	601.9	157.2	3.7
31300.0	306.5	-34.6	-38.7	67.1	447.6	601.6	159.8	3.9
31400.0	305.2	-35.0	-38.9	66.9	446.3	601.3	162.2	4.0
31500.0	303.9	-35.2	-39.2	66.7	444.9	601.0	164.5	4.2
31600.0	302.6	-35.5	-39.5	66.4	443.5	600.6	166.4	4.3
31700.0	301.3	-35.7	-39.8	66.2	442.0	600.3	168.1	4.4
31800.0	300.0	-36.0	-40.0	66.0	440.0	600.0	169.8	4.5
31900.0	298.7	-36.2	-40.1	66.9	439.1	599.7	171.4	4.5

STATION ALTITUDE 4051.00 FT. T MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. .0

URPPR ALK DIA  
1730030090  
JALLEN

GEOMETRIC PRESSURE  
ALTITUDE  
MSL FEET MILLIBARS DEGREE, CENTIGRADE

STATION ALTITUDE 4051.00 FT. T MSL 22 JUNE 83 1740 MDT ASCENSION NO. .0	GEOMETRIC PRESSURE ALTITUDE MSL FEET MILLIBARS DEGREE, CENTIGRADE	TEMPERATURE AIR DEWEPOINT PERCENT	KEL. HUM. GM/CUBIC METER	DENSITY SOUND KNOTS	WIND DATA DIRECTION (DEGREES TN)	INDEX OF REFRACTION
32000.0	297.4	-36.5	-40.2	67.9	437.6	1.000099
32100.0	296.1	-36.7	-40.3	68.8	430.1	1.000098
32200.0	294.8	-36.9	-40.4	69.8	434.6	1.000098
32300.0	293.5	-37.2	-40.5	70.7	433.2	1.000098
32400.0	292.2	-37.4	-40.6	71.7	431.7	1.000097
32500.0	290.9	-37.6	-40.7	72.6	430.2	1.000097
32600.0	289.7	-37.9	-40.8	73.6	428.0	1.000097
32700.0	288.4	-38.1	-40.9	74.6	427.3	1.000096
32800.0	287.1	-38.4	-41.3	73.8	426.1	1.000096
32900.0	285.9	-38.9	-42.1	71.5	425.0	1.000096
33000.0	284.6	-39.2	-42.7	69.1**	423.7	1.000095
33100.0	283.3	-39.5	-43.2	66.7**	422.2	1.000095
33200.0	282.0	-39.7	-43.0	64.3**	420.8	1.000095
33300.0	280.8	-40.0	-44.4	61.9**	419.4	1.000094
33400.0	279.5	-40.2	-45.0	59.5**	418.0	1.000094
33500.0	278.3	-40.5	-45.0	57.1**	416.5	1.000093
33600.0	277.0	-40.7	-46.0	54.7**	415.1	1.000093
33700.0	275.8	-41.0	-46.9	52.3**	413.7	1.000093
33800.0	274.5	-41.2	-47.5	49.9**	412.3	1.000093
33900.0	273.3	-41.5	-48.2	47.5**	410.9	1.000092
34000.0	272.1	-41.7	-48.9	45.1**	409.5	1.000092
34100.0	270.8	-42.0	-49.6	42.7**	408.1	1.000091
34200.0	269.6	-42.2	-50.3	40.3**	406.7	1.000091
34300.0	268.4	-42.5	-51.1	37.9**	405.4	1.000091
34400.0	267.2	-42.7	-51.9	35.5**	404.0	1.000090
34500.0	266.0	-43.0	-52.7	33.1**	402.6	1.000090
34600.0	264.8	-43.3	-53.5	30.7**	401.3	1.000090
34700.0	263.6	-43.5	-54.4	28.3**	399.9	1.000089
34800.0	262.4	-43.8	-55.4	25.9**	398.5	1.000089
34900.0	261.3	-44.0	-56.4	23.5**	397.2	1.000089
35000.0	260.1	-44.3	-57.4	21.1**	395.9	1.000088
35100.0	259.0	-44.5	-58.6	18.7**	394.5	1.000088
35200.0	257.8	-44.8	-59.9	16.3**	393.2	1.000087
35300.0	256.6	-45.0	-61.3	13.9**	391.9	1.000087
35400.0	255.5	-45.3	-62.9	11.5**	390.5	1.000087
35500.0	254.3	-45.5	-64.9	9.1**	389.2	1.000087
35600.0	253.2	-45.8	-67.3	6.7**	387.9	1.000086
35700.0	252.0	-46.0	-70.5	4.3**	386.6	1.000086
35800.0	250.9	-46.3	-76.0	1.9**	385.3	1.000086
35900.0	249.8	-46.5	-	-	384.0	1.000086

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

TABLE 11 CONT'D

\*\* ALL LAST ONE-55, MED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FT EEL. HSL  
22 JUNE 83 1740 MDT

ASCENSION NO. 99

UPPER AIR DATA  
1730030090  
JALLEN  
TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	DEW POINT CELSIUS GRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SP. HEAT OF SOUND KILOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KIOTS	INDEX OF REFRACTION
36000.0	248.6	-46.0			3802.6	5866.1	147.8	12.4	1.000085
36100.0	247.5	-47.0			3801.2	5855.8	148.0	12.6	1.000085
36200.0	246.3	-47.3			3799.9	5855.5	148.2	12.8	1.000085
36300.0	245.2	-47.5			3788.5	5855.2	148.4	13.0	1.000084
36400.0	244.0	-47.7			3777.1	5844.9	148.6	13.2	1.000084
36500.0	242.8	-48.0			3765.8	5844.6	148.7	13.3	1.000084
36600.0	241.6	-48.2			3754.4	5844.3	148.9	13.7	1.000083
36700.0	240.6	-48.5			3743.1	5844.0	149.0	13.9	1.000083
36800.0	239.5	-48.7			3731.8	5833.7	148.9	13.9	1.000083
36900.0	238.4	-48.9			3720.4	5833.4	148.7	13.8	1.000083
37000.0	237.3	-49.2			3699.1	5833.0	148.5	13.8	1.000082
37100.0	236.2	-49.4			3677.8	5822.7	148.3	13.7	1.000082
37200.0	235.1	-49.6			3666.5	5822.4	148.1	13.6	1.000082
37300.0	234.0	-49.9			3655.2	5822.1	147.9	13.6	1.000081
37400.0	232.9	-50.1			3633.9	5818.8	147.7	13.5	1.000081
37500.0	231.9	-50.4			3622.6	5815.5	147.5	13.4	1.000081
37600.0	230.8	-50.6			3611.3	5812.2	147.3	13.4	1.000080
37700.0	229.7	-50.8			3600.0	5809.9	147.1	13.3	1.000080
37800.0	228.7	-51.1			3589.7	5806.6	146.8	13.2	1.000080
37900.0	227.6	-51.3			3577.4	5802.2	146.4	13.1	1.000080
38000.0	226.5	-51.5			3566.1	5799.9	145.9	13.1	1.000079
38100.0	225.5	-51.8			3554.9	5796.6	145.4	13.0	1.000079
38200.0	224.4	-52.0			3553.6	5793.3	144.9	12.9	1.000079
38300.0	223.4	-52.3			3552.3	5790.0	144.4	12.8	1.000078
38400.0	222.4	-52.5			3551.1	5787.7	143.9	12.7	1.000078
38500.0	221.3	-52.7			3499.8	5784.4	143.4	12.7	1.000078
38600.0	220.3	-53.0			3488.6	5781.1	142.9	12.6	1.000078
38700.0	219.3	-53.2			3477.3	5777.8	142.3	12.5	1.000077
38800.0	218.3	-53.5			3466.1	5774.4	141.8	12.4	1.000077
38900.0	217.3	-53.7			3444.9	5771.1	143.6	12.5	1.000077
39000.0	216.2	-53.9			3433.5	5767.9	146.2	12.7	1.000077
39100.0	215.2	-54.0			3422.1	5763.8	148.7	12.9	1.000076
39200.0	214.2	-54.1			3400.6	5760.6	151.1	13.1	1.000076
39300.0	213.2	-54.2			3389.2	5760.5	153.5	13.4	1.000076
39400.0	212.2	-54.3			3377.7	5760.3	155.7	13.7	1.000075
39500.0	211.2	-54.4			3366.5	5760.2	157.9	13.9	1.000075
39600.0	210.2	-54.5			3344.9	5760.0	159.9	14.3	1.000075
39700.0	209.2	-54.6			3333.5	5759.9	161.9	14.6	1.000074
39800.0	208.2	-54.8			3322.1	5757.7	163.6	14.9	1.000074
39900.0	207.2	-54.9			3300.7	5756.6	165.6	15.3	1.000074

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

STATION ALTITUDE 4051.00 FT. 1 MSL  
 22 JUNE 83 1740 MDT  
 ASCENSION NO. 90

UPPLD AIR DATA  
 1730030090  
 JALLEN

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE'S CENTIGRADE	DEPOINT PERCENT	REL. HUM. PERCENT	SPED. OF SOUND KNOTS METFR	SPED. OF SOUND KNOTS METFR	WIND DIRECTION DEGREES (TN)	WIND SPEED KMOTS	INDEX OF REFRACTION
40000.0	2800.2	-55.0			329.3	575.4	168.3	15.5	1.000073
40100.0	2805.2	-55.1			327.9	575.3	170.7	15.6	1.000073
40200.0	2804.3	-55.2			326.5	575.1	173.0	16.2	1.000073
40300.0	2803.3	-55.3			325.1	575.0	175.1	16.5	1.000072
40400.0	2802.3	-55.4			323.8	574.8	177.2	16.9	1.000072
40500.0	2801.4	-55.5			322.4	574.7	179.2	17.3	1.000072
40600.0	2800.4	-55.6			321.0	574.5	181.2	17.8	1.000071
40700.0	2799.5	-55.7			319.6	574.5	183.0	18.2	1.000071
40800.8	2799.6	-55.6			318.1	574.4	184.7	18.7	1.000071
40900.0	2799.7	-55.8			315.7	574.4	186.5	19.1	1.000070
41000.0	2799.8	-55.8			313.7	574.3	186.5	19.0	1.000070
41200.0	2794.8	-55.9			312.3	574.3	186.5	18.9	1.000070
41300.0	2793.9	-55.9			310.8	574.2	186.5	18.9	1.000069
41400.0	2792.9	-55.9			309.4	574.2	186.5	18.8	1.000069
41500.0	2792.0	-55.9			307.9	574.2	186.5	18.7	1.000069
41600.0	2791.1	-56.0			306.5	574.1	186.5	18.6	1.000068
41700.0	2790.2	-56.0			305.1	574.1	186.5	18.5	1.000068
41800.0	2789.3	-56.0			303.7	574.1	186.5	18.5	1.000068
41900.0	2788.4	-56.0			302.3	574.0	186.4	18.5	1.000067
42000.0	2787.5	-56.1			300.9	574.0	186.2	18.7	1.000067
42100.0	2786.6	-56.1			299.5	574.0	185.9	18.9	1.000067
42200.0	2785.7	-56.1			299.0	574.0	185.7	19.1	1.000066
42300.0	2784.8	-56.0			298.6	574.0	185.5	19.3	1.000066
42400.0	2783.9	-56.0			295.1	574.1	185.3	19.5	1.000066
42500.0	2783.1	-56.0			293.7	574.1	185.0	19.6	1.000065
42600.0	2782.2	-56.0			292.3	574.1	184.8	20.0	1.000065
42700.0	2781.3	-55.9			290.8	574.2	184.6	20.2	1.000065
42800.0	2780.5	-55.9			289.4	574.2	184.4	20.4	1.000064
42900.0	2779.6	-55.9			288.0	574.2	185.2	20.8	1.000064
43000.0	2778.8	-55.9			286.6	574.3	185.9	21.2	1.000064
43100.0	2777.9	-55.8			285.2	574.3	186.7	21.6	1.000064
43200.0	2777.1	-55.8			283.8	574.3	187.4	22.0	1.000063
43300.0	2776.2	-55.8			282.4	574.4	188.1	22.4	1.000063
43400.0	2775.4	-55.7			281.0	574.4	188.8	22.8	1.000063
43500.0	2774.6	-55.7			279.7	574.5	189.5	23.3	1.000062
43600.0	2773.7	-55.7			278.3	574.5	190.1	23.7	1.000062
43700.0	2772.9	-55.7			276.9	574.5	190.7	24.1	1.000062
43800.0	2772.1	-55.6			275.6	574.6	191.3	24.5	1.000061
43900.0	2771.3	-55.6			274.3	574.6	191.9	24.9	1.000061

VATION ALTITUDE 4051.00 FT. T MSL.  
22 JUNE 43 1740 PDT  
ASCENSION 140. 90

UPPER AIR DATA  
1730030090  
JALFFI

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CMIC	SLF:FD OF WIND METER	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
44000.0	170.4	-55.6	272.9	574.6	192.4	25.3	1.000061	
44100.0	169.6	-55.6	271.6	574.7	193.0	25.7	1.000060	
44200.0	160.8	-55.5	270.3	574.7	193.5	26.1	1.000060	
44300.0	160.0	-55.5	269.9	574.7	194.0	26.5	1.000060	
44400.0	161.2	-55.5	267.6	574.8	194.5	26.9	1.000060	
44500.0	160.4	-55.4	266.3	574.8	195.0	27.3	1.000059	
44600.0	160.6	-55.4	265.0	574.9	195.5	27.7	1.000059	
44700.0	164.9	-55.4	263.8	574.8	195.9	28.1	1.000059	
44800.0	164.1	-55.5	262.6	574.7	196.2	28.3	1.000058	
44900.0	162.3	-55.5	261.3	574.6	196.4	28.4	1.000058	
45000.0	162.5	-55.9	260.3	574.5	196.5	28.4	1.000058	
45100.0	161.7	-55.8	259.2	574.4	196.7	28.5	1.000058	
45200.0	161.0	-55.9	258.1	574.3	196.8	28.5	1.000057	
45300.0	160.2	-55.9	257.0	574.2	197.0	28.6	1.000057	
45400.0	159.4	-56.0	255.9	574.1	197.2	28.6	1.000057	
45500.0	150.7	-56.1	254.7	573.9	197.3	28.6	1.000057	
45600.0	157.9	-56.2	253.6	573.8	197.5	28.7	1.000056	
45700.0	157.2	-56.3	252.5	573.7	197.7	28.7	1.000056	
45800.0	150.4	-56.4	251.4	573.6	197.0	28.2	1.000056	
45900.0	152.7	-56.5	250.3	573.4	196.0	27.6	1.000056	
46000.0	154.9	-56.6	249.3	573.3	195.0	26.9	1.000056	
46100.0	154.2	-56.7	248.2	573.1	193.9	26.3	1.000055	
46200.0	153.5	-56.8	247.2	573.0	192.8	25.6	1.000055	
46300.0	152.7	-57.0	246.1	572.8	191.7	25.0	1.000055	
46400.0	152.0	-57.1	245.1	572.7	190.5	24.4	1.000055	
46500.0	151.3	-57.2	244.0	572.5	189.2	23.8	1.000054	
46600.0	150.6	-57.3	243.0	572.3	187.9	23.2	1.000054	
46700.0	149.8	-57.5	242.0	572.2	186.4	22.6	1.000054	
46800.0	149.1	-57.7	241.1	571.8	184.8	22.1	1.000054	
46900.0	140.4	-57.9	240.2	571.5	182.9	21.6	1.000053	
47000.0	147.6	-58.2	239.3	571.2	181.0	21.1	1.000053	
47100.0	146.9	-58.4	238.4	570.9	179.0	20.6	1.000053	
47200.0	140.2	-58.7	237.5	570.6	177.0	20.2	1.000053	
47300.0	145.5	-58.9	236.6	570.2	174.8	19.8	1.000053	
47400.0	144.8	-59.1	235.7	569.9	172.5	19.4	1.000052	
47500.0	144.1	-59.4	234.8	569.6	170.2	19.0	1.000052	
47600.0	143.4	-59.6	233.9	569.3	167.7	18.7	1.000052	
47700.0	142.7	-59.9	233.0	569.0	165.2	18.4	1.000052	
47800.0	142.0	-60.1	232.1	568.6	163.4	18.3	1.000052	
47900.0	141.3	-60.3	231.3	568.3	162.5	18.4	1.000051	

STATION ALTITUDE 451.00 FEET MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 90

UPPLA AIR DATA  
1730030090  
JALLEN

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES, CENTIGRADE	DEWPOINT DEGREES, CENTIGRADE	REL. HUM. PERCENT	HUM. DEPTH GM/CMIL METER	SOUND SPEED KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
48000.0	140.6	-60.6			230.4	5611.11	161.6	10.4	1.000051
48100.0	139.9	-60.8			229.3	5677.7	160.6	10.5	1.000051
48200.0	139.2	-61.1			228.7	567.4	159.7	10.5	1.000051
48300.0	130.5	-61.3			227.8	567.11	158.8	10.6	1.000051
48400.0	137.9	-61.5			226.9	566.7	157.9	10.7	1.000051
48500.0	137.2	-61.6			226.1	566.4	157.0	10.8	1.000050
48600.0	130.5	-62.0			225.2	566.1	156.1	10.9	1.000050
48700.0	135.6	-62.3			224.4	565.7	155.2	10.0	1.000050
48800.0	135.2	-62.5			223.6	565.4	154.5	10.1	1.000050
48900.0	134.5	-62.7			222.7	565.1	154.6	10.2	1.000050
49000.0	135.9	-63.0			221.9	564.8	154.8	10.4	1.000049
49100.0	135.2	-63.2			221.1	564.5	154.9	10.6	1.000049
49200.0	132.6	-63.5			220.2	564.1	155.1	10.7	1.000049
49300.0	131.9	-63.7			219.4	563.8	155.2	10.9	1.000049
49400.0	131.3	-63.9			218.6	563.5	155.4	20.1	1.000049
49500.0	130.6	-64.2			217.8	563.2	155.5	20.2	1.000049
49600.0	130.0	-64.4			216.9	562.8	155.6	20.4	1.000048
49700.0	129.3	-64.7			216.1	562.5	155.8	20.6	1.000048
49800.0	128.7	-64.9			215.3	562.2	155.9	20.7	1.000048
49900.0	126.1	-65.1			214.5	561.9	156.1	20.9	1.000048
50000.0	127.5	-65.4			213.7	561.5	156.4	21.0	1.000048
50100.0	126.8	-65.6			212.9	561.2	156.6	21.1	1.000047
50200.0	126.2	-65.9			212.1	560.9	156.8	21.3	1.000047
50300.0	125.6	-66.1			211.3	560.6	157.1	21.4	1.000047
50400.0	125.0	-66.3			210.5	560.3	157.3	21.6	1.000047
50500.0	124.4	-66.4			209.5	560.2	157.6	21.7	1.000047
50600.0	123.7	-66.4			208.5	560.1	157.8	21.8	1.000046
50700.0	123.1	-66.5			207.6	560.0	158.0	22.0	1.000046
50800.0	122.5	-66.6			206.6	559.9	158.2	22.1	1.000046
50900.0	121.9	-66.6			205.9	559.8	158.5	22.2	1.000046
51000.0	121.3	-66.7			204.6	559.7	158.6	22.2	1.000046
51100.0	120.7	-66.8			203.7	559.7	159.1	22.2	1.000045
51200.0	120.1	-66.8			202.7	559.6	159.4	22.2	1.000045
51300.0	119.5	-66.9			201.8	559.5	159.8	22.1	1.000045
51400.0	116.9	-67.0			200.8	559.4	160.1	22.1	1.000045
51500.0	116.3	-67.0			199.9	559.3	160.4	22.1	1.000045
51600.0	117.7	-67.1			196.9	559.2	160.7	22.1	1.000044
51700.0	117.1	-67.2			196.0	559.1	161.1	22.1	1.000044
51800.0	116.5	-67.2			197.1	559.0	161.4	22.0	1.000044
51900.0	115.9	-67.3			196.2	558.9	161.7	22.0	1.000044

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

STATION ALTITUDE 4051.00 FT-T a.s.l.  
22 JUNE 03 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
1730050090  
JALIFN

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CLIC. METER	SITE OF SOUND KNOTS	WIND DATA INJECTION DEGREES (TH)	SPEED KNOTS	INDEX OF REFRACTION
52000.0	115.3	-67.4				195.2	358.9	162.2	21.7
52100.0	114.7	-67.4				194.3	358.8	162.7	21.3
52200.0	114.2	-67.5				193.4	358.7	163.2	20.9
52300.0	113.6	-67.6				192.5	358.6	163.8	20.5
52400.0	113.0	-67.6				191.6	358.5	164.3	20.2
52500.0	112.5	-67.7				190.7	358.4	164.9	19.8
52600.0	111.9	-67.8				189.8	358.3	165.5	19.4
52700.0	111.3	-67.8				188.9	358.2	166.2	19.0
52800.0	110.8	-67.9				188.0	358.1	166.9	18.6
52900.0	110.2	-68.0				187.1	358.0	167.6	18.2
53000.0	109.7	-68.0				186.3	358.0	168.2	17.9
53100.0	109.1	-68.1				185.4	357.9	168.8	17.7
53200.0	108.6	-68.2				184.5	357.8	169.5	17.4
53300.0	108.3	-68.2				183.6	357.8	169.9	17.2
53400.0	107.5	-68.1				182.6	357.9	170.4	17.0
53500.0	106.9	-68.0				181.6	358.0	171.0	16.8
53600.0	106.4	-67.9				180.6	358.1	171.6	16.6
53700.0	105.9	-67.8				179.6	358.2	172.2	16.4
53800.0	105.3	-67.7				178.7	358.3	172.8	16.2
53900.0	104.8	-67.7				177.7	358.4	173.5	15.9
54000.0	104.3	-67.6				176.7	358.6	174.1	15.7
54100.0	103.8	-67.5				175.8	358.7	174.3	15.7
54200.0	103.2	-67.4				174.8	358.8	173.9	15.9
54300.0	102.7	-67.3				173.9	358.9	173.5	16.1
54400.0	102.2	-67.3				172.9	359.0	173.1	16.3
54500.0	101.7	-67.2				172.0	359.1	172.7	16.5
54600.0	101.2	-67.1				171.1	359.2	172.4	16.7
54700.0	100.7	-67.0				170.1	359.3	172.0	16.9
54800.0	100.2	-66.9				169.2	359.5	171.7	17.1
54900.0	99.7	-66.9				168.4	359.5	171.3	17.3
55000.0	99.2	-66.9				167.5	359.5	171.0	17.5
55100.0	98.7	-66.9				166.7	359.4	170.7	17.7
55200.0	98.2	-67.0				165.9	359.4	170.7	17.7
55300.0	97.7	-67.0				165.1	359.4	171.0	17.5
55400.0	97.2	-67.0				164.2	359.4	171.2	17.4
55500.0	96.7	-67.0				163.4	359.4	171.5	17.3
55600.0	96.2	-67.0				162.6	359.3	171.7	17.1
55700.0	95.7	-67.0				161.8	359.3	172.0	17.0
55800.0	95.3	-67.0				161.0	359.3	172.3	16.9
55900.0	94.8	-67.1				160.2	359.3	172.6	16.7

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

STATION ALTITUDE 4951.00 FT, T.SL  
22 JUNE 83 1740 MDT  
ASCENSION NO. ,0

UPPER AIR DATA  
1730030090  
JALLEN

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR DEGREES CENTIGRADE	TEMPERATURE DEGREES CENTIGRADE	KELVIN PERCENT	DENSITY GM/CUBIC	SWF OF SOUND METER	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
56000.0	94.3	-67.1				159.4	559.3	172.9	16.6
56100.0	93.8	-67.1				158.6	559.2	173.1	16.5
56200.0	93.4	-67.1				157.9	559.2	173.4	16.3
56300.0	92.9	-67.1				157.1	559.2	173.7	15.9
56400.0	92.4	-67.1				156.3	559.2	173.9	15.3
56500.0	92.0	-67.1				155.5	559.2	174.1	14.8
56600.0	91.5	-67.2				154.8	559.2	174.3	14.3
56700.0	91.1	-67.2				154.0	559.1	174.6	13.7
56800.0	90.6	-67.2				153.2	559.1	174.9	13.2
56900.0	90.2	-67.2				152.4	559.1	175.2	12.7
57000.0	89.7	-67.2				151.7	559.1	175.5	12.1
57100.0	89.3	-67.2				151.0	559.1	175.9	11.6
57200.0	88.8	-67.2				150.2	559.0	176.3	11.1
57300.0	88.4	-67.2				149.5	559.0	174.4	10.8
57400.0	87.9	-67.3				148.6	559.0	171.6	10.6
57500.0	87.5	-67.3				148.0	559.0	169.2	10.4
57600.0	87.0	-67.3				147.3	559.0	166.5	10.2
57700.0	86.6	-67.2				146.5	559.0	163.7	10.0
57800.0	86.2	-67.1				145.7	559.2	160.8	9.9
57900.0	85.7	-67.0				144.9	559.3	157.8	9.8
58000.0	85.3	-66.9				144.1	559.5	154.8	9.7
58100.0	84.9	-66.8				143.3	559.6	151.8	9.7
58200.0	84.5	-66.7				142.5	559.8	148.7	9.7
58300.0	84.1	-66.6				141.0	559.9	147.0	9.7
58400.0	83.6	-66.5				141.0	560.1	146.0	9.8
58500.0	83.2	-66.3				140.2	560.2	145.0	9.9
58600.0	82.8	-66.2				139.4	560.4	144.1	10.0
58700.0	82.4	-66.1				138.7	560.6	143.1	10.1
58800.0	82.0	-66.0				137.9	560.7	142.2	10.2
58900.0	81.6	-65.9				137.1	560.9	141.3	10.3
59000.0	81.2	-65.8				136.4	561.0	140.4	10.4
59100.0	80.8	-65.7				135.6	561.2	139.5	10.5
59200.0	80.4	-65.6				134.9	561.3	138.7	10.6
59300.0	80.0	-65.4				134.2	561.5	138.5	10.6
59400.0	79.6	-65.3				133.4	561.6	139.0	10.6
59500.0	79.2	-65.2				132.7	561.8	139.5	10.5
59600.0	78.8	-65.1				132.0	561.9	140.1	10.4
59700.0	78.4	-65.0				131.2	562.1	140.6	10.4
59800.0	78.0	-64.9				130.5	562.2	141.2	10.3
59900.0	77.6	-64.8				129.8	562.4	141.7	10.2

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

STATION ALTITUDE 4051.00 FT MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
1730n JUNO90  
JALLEN

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	TEMPORAL CENTIGRADE	REL. HUM. PERCENT	GND FHRIC	SOUND NOTS	SLP. OF DIRRECION, DEGREES	WIND DATA SPEED, KNOTS	INDEX OF REFRACTION
60000.0	77.3	-44.6					129.1	562.5	10.2
60100.0	76.9	-64.5					120.4	562.7	10.1
60200.0	76.5	-64.4					127.7	562.6	1.000029
60300.0	76.1	-64.3					127.0	563.0	1.000028
60400.0	75.7	-64.2					126.3	563.1	1.000028
60500.0	75.4	-64.1					125.6	563.3	1.000028
60600.0	75.0	-64.0					124.9	563.5	1.000028
60700.0	74.6	-63.9					124.2	563.6	1.000028
60800.0	74.2	-63.7					123.5	563.8	1.000028
60900.0	73.9	-63.6					122.8	563.9	1.000027
61000.0	73.5	-63.5					122.2	564.1	1.000027
61100.0	73.2	-63.4					121.5	564.2	1.000027
61200.0	72.8	-63.3					120.8	564.4	1.000027
61300.0	72.4	-63.2					120.2	564.5	1.000027
61400.0	72.1	-63.1					119.5	564.7	1.000027
61500.0	71.7	-63.0					118.9	564.8	1.000026
61600.0	71.4	-62.8					118.2	565.0	1.000026
61700.0	71.0	-62.7					117.6	565.1	1.000026
61800.0	70.7	-62.6					116.9	565.3	1.000026
61900.0	70.3	-62.5					116.3	565.4	1.000026
62000.0	70.0	-62.4					115.6	565.6	1.000026
62100.0	69.6	-62.5					115.1	565.6	1.000026
62200.0	69.3	-62.5					114.6	565.4	1.000026
62300.0	69.9	-62.6					114.0	565.3	1.000025
62400.0	68.6	-62.6					113.5	565.3	1.000025
62500.0	68.3	-62.7					113.0	565.2	1.000025
62600.0	67.9	-62.7					112.4	565.1	1.000025
62700.0	67.6	-62.8					111.9	565.0	1.000025
62800.0	67.3	-62.8					111.4	565.0	1.000025
62900.0	66.9	-62.9					110.2	564.9	1.000024
63000.0	66.6	-62.9					109.4	564.9	1.000024
63100.0	66.3	-63.0					108.7	564.7	1.000024
63200.0	65.9	-63.1					108.1	564.7	1.000024
63300.0	65.6	-63.1					107.4	564.7	1.000024
63400.0	65.3	-63.2					106.8	564.6	1.000024
63500.0	64.9	-63.2					107.3	564.5	1.000024
63600.0	64.9	-63.3					108.1	564.5	1.000024
63700.0	64.5	-63.3					108.3	564.4	1.000024
63800.0	64.0	-63.4					108.2	564.4	1.000024
63900.0	63.7	-63.4					107.7	564.2	1.000024

STATION ALTITUDE 1051.00 FT. T MSL  
22 JUNE 83 1740 MDT  
ASCENSION NO. 90

UPPER AIR DATA  
1730030090  
JALLEN

GEOGRAPHIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE, HSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	PERCENT	WIND DENSITY SPEED OF SOUND GM/CUBIC METER	WIND DIRECTION SPEED IN DEGREES (ITN) KNOTS	INDEX OF REFRACTION
64000.0	63.4	-63.5	105.3	564.1	114.1	17.8
64100.0	63.1	-63.5	104.9	564.0	113.6	17.9
64200.0	62.8	-63.6	104.4	564.0	113.1	17.9
64300.0	62.5	-63.7	103.9	563.9	112.6	17.9
64400.0	62.2	-63.7	103.4	563.8	112.1	18.0
64500.0	61.9	-63.6	102.8	564.0	111.5	18.0
64600.0	61.6	-63.4	102.3	564.2	111.0	18.1
64700.0	61.3	-63.3	101.7	564.3	110.5	18.1
64800.0	61.0	-63.2	101.2	564.5	109.6	18.2
64900.0	60.7	-63.1	100.6	564.6	108.3	18.2
65000.0	60.4	-63.0	100.1	564.8	106.9	18.2
65100.0	60.1	-62.8	99.5	565.0	105.5	18.2
65200.0	59.8	-62.7	99.0	565.1	104.2	18.2
65300.0	59.5	-62.6	98.4	565.3	102.8	18.3
65400.0	59.2	-62.5	97.9	565.5	101.5	18.3
65500.0	58.9	-62.4	97.4	565.6	100.1	18.4
65600.0	58.6	-62.2	96.8	565.8	98.8	18.5
65700.0	58.3	-62.1	96.3	565.9	97.5	18.6
65800.0	58.1	-62.0	95.8	566.1	96.2	18.7
65900.0	57.8	-61.9	95.3	566.3	95.5	18.7
66000.0	57.5	-61.8	94.8	566.4	95.3	18.6
66100.0	57.2	-61.6	94.2	566.6	95.1	18.5
66200.0	56.9	-61.5	93.7	566.7	94.9	18.4
66300.0	56.7	-61.4	93.2	566.9	94.6	18.3
66400.0	56.4	-61.3	92.7	567.1	94.4	18.3
66500.0	56.1	-61.2	92.2	567.2	94.2	18.2
66600.0	55.8	-61.0	91.7	567.4	94.0	18.1
66700.0	55.6	-60.9	91.2	567.6	93.8	18.0
66800.0	55.3	-60.8	90.7	567.7	93.5	17.9
66900.0	55.0	-60.7	90.2	567.9	93.3	17.9
67000.0	54.8	-60.6	89.7	568.0	92.9	17.8
67100.0	54.5	-60.4	89.3	568.2	92.4	17.7
67200.0	54.2	-60.3	88.8	568.4	91.8	17.6
67300.0	54.0	-60.2	88.3	568.5	91.3	17.5
67400.0	53.7	-60.1	87.8	568.7	90.8	17.5
67500.0	53.4	-60.0	87.3	569.0	90.3	17.4
67600.0	53.2	-59.8	86.9	569.0	89.7	17.3
67700.0	52.9	-59.7	86.4	569.2	89.2	17.2
67800.0	52.7	-59.6	85.9	569.3	88.6	17.2
67900.0	52.4	-59.5	85.5	569.5	88.1	17.1

STATION ALTITUDE 4,511.00 FEET MSL  
22 JUNE 63 1740 MDT  
ASCENSION NO. 96

UPPER AIR DATA  
1730030090  
JALLET

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT PERCENT	REL. HUM. GM/CM <sup>3</sup>	SPF. OF SOUND KNOTS	WIND DIRECTION IN DEGREES	SPF. OF REFRACTION	INDEX
68000.0	52.2	-59.3		85.0	569.6	87.5	17.0	1.000019
68100.0	51.9	-59.2		84.5	569.8	86.9	17.2	1.000019
68200.0	51.7	-59.1		84.1	570.0	86.2	17.4	1.000019
68300.0	51.4	-59.0		83.6	570.1	85.6	17.7	1.000019
68400.0	51.2	-58.9		83.2	570.3	85.0	17.9	1.000019
68500.0	50.9	-58.7		82.7	570.4	84.4	18.1	1.000018
68600.0	50.7	-58.6		82.3	570.6	83.8	18.3	1.000018
68700.0	50.4	-58.5		81.8	570.8	83.3	18.6	1.000018
68800.0	50.2	-58.4		81.4	570.9	82.7	18.8	1.000018
68900.0	49.9	-58.3		80.9	571.0	82.2	19.0	1.000018
69000.0	49.7	-58.3		80.6	571.1	81.7	19.3	1.000018
69100.0	49.5	-58.2		80.2	571.1	81.2	19.5	1.000018
69200.0	49.2	-58.2		79.8	571.2	82.3	19.8	1.000018
69300.0	49.0	-58.2		79.4	571.2	83.5	20.1	1.000018
69400.0	48.7	-58.1		79.0	571.2	84.6	20.5	1.000018
69500.0	48.5	-58.1		78.6	571.3	85.7	20.8	1.000017
69600.0	48.3	-58.1		78.2	571.3	86.8	21.1	1.000017
69700.0	48.0	-58.1		77.8	571.4	87.9	21.5	1.000017
69800.0	47.8	-58.0		77.4	571.4	88.9	21.8	1.000017
69900.0	47.6	-58.0		77.1	571.4	89.9	22.2	1.000017
70000.0	47.4	-58.0		76.7	571.5	90.4	22.6	1.000017
70100.0	47.1	-57.9		76.3	571.5	91.7	22.9	1.000017
70200.0	46.9	-57.9		75.9	571.6	92.6	23.3	1.000017
70300.0	46.7	-57.9		75.5	571.6	93.4	23.6	1.000017
70400.0	46.5	-57.8		75.2	571.6	93.8	23.6	1.000017
70500.0	46.2	-57.8		74.8	571.7	94.2	23.7	1.000017
70600.0	46.0	-57.8		74.4	571.7	94.6	23.7	1.000017
70700.0	45.8	-57.7		74.1	571.8	95.0	23.7	1.000016
70800.0	45.6	-57.7		73.7	571.8	95.4	23.8	1.000016
70900.0	45.4	-57.7		73.3	571.8	95.8	23.8	1.000016
71000.0	45.1	-57.7		73.0	571.9	96.2	23.8	1.000016
71100.0	44.9	-57.6		72.6	571.9	96.6	23.9	1.000016
71200.0	44.7	-57.6		72.3	572.0	97.0	23.9	1.000016
71300.0	44.5	-57.6		71.9	572.0	97.4	24.0	1.000016
71400.0	44.3	-57.5		71.6	572.0	97.8	24.0	1.000016
71500.0	44.1	-57.5		71.2	572.1	98.0	24.0	1.000016
71600.0	43.9	-57.5		70.9	572.1	97.5	24.0	1.000016
71700.0	43.7	-57.4		70.5	572.2	97.0	23.9	1.000016
71800.0	43.4	-57.4		70.2	572.2	96.5	23.8	1.000016
71900.0	43.2	-57.4		69.8	572.2	96.0	23.8	1.000016

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22 JUNE 83 1740 MDT  
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TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DESIRT. GM/CHNL METR	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
72000.0	43.0	-57.4			69.5	572.3	95.5	23.7	1.000015
72100.0	42.8	-57.3			69.1	572.3	95.0	23.7	1.000015
72200.0	42.6	-57.3			68.9	572.4	94.5	23.6	1.000015
72300.0	42.4	-57.3			68.4	572.4	94.0	23.6	1.000015
72400.0	42.2	-57.2			68.1	572.4	93.5	23.5	1.000015
72500.0	42.0	-57.2			67.8	572.5	93.0	23.5	1.000015
72600.0	41.8	-57.2			67.4	572.5	92.5	23.4	1.000015
72700.0	41.6	-57.1			67.1	572.6	92.0	23.4	1.000015
72800.0	41.4	-57.1			66.8	572.6	91.2	23.1	1.000015
72900.0	41.2	-57.1			66.4	572.7	90.3	22.9	1.000015
73000.0	41.0	-57.0			66.1	572.8	89.5	22.6	1.000015
73100.0	40.8	-56.9			65.6	572.9	88.6	22.4	1.000015
73200.0	40.6	-56.8			65.4	573.0	87.7	22.2	1.000015
73300.0	40.4	-56.8			65.1	573.1	86.8	21.9	1.000014
73400.0	40.3	-56.7			64.8	573.2	85.9	21.7	1.000014
73500.0	40.1	-56.6			64.5	573.3	84.9	21.5	1.000014
73600.0	39.9	-56.6			64.1	573.4	83.9	21.3	1.000014
73700.0	39.7	-56.5			63.8	573.5	83.0	21.1	1.000014
73800.0	39.5	-56.4			63.5	573.6	82.0	20.9	1.000014
73900.0	39.3	-56.3			63.2	573.6	80.9	20.7	1.000014
74000.0	39.1	-56.3			62.9	573.7	80.7	20.7	1.000014
74100.0	39.0	-56.2			62.5	573.8	80.5	20.6	1.000014
74200.0	38.8	-56.1			62.2	573.9	80.4	20.6	1.000014
74300.0	38.6	-56.0			61.9	574.0	80.2	20.5	1.000014
74400.0	38.4	-56.0			61.6	574.1	80.1	20.5	1.000014
74500.0	38.2	-55.9			61.3	574.2	79.9	20.4	1.000014
74600.0	38.0	-55.8			61.0	574.3	79.8	20.4	1.000014
74700.0	37.9	-55.7			60.7	574.4	79.6	20.3	1.000014
74800.0	37.7	-55.7			60.3	574.5	79.5	20.3	1.000013
74900.0	37.5	-55.6			60.0	574.6	79.3	20.2	1.000013
75000.0	37.3	-55.5			59.7	574.7	79.2	20.2	1.000013
75100.0	37.1	-55.4			59.4	574.8	79.0	20.1	1.000013
75200.0	37.0	-55.4			59.1	574.9	79.4	20.2	1.000013
75300.0	36.8	-55.3			58.8	575.0	80.2	20.4	1.000013
75400.0	36.6	-55.2			58.5	575.1	81.0	20.6	1.000013
75500.0	36.5	-55.1			58.2	575.2	81.8	20.8	1.000013
75600.0	36.3	-55.1			58.0	575.3	82.5	21.0	1.000013
75700.0	36.1	-55.0			57.7	575.4	83.3	21.2	1.000013
75800.0	35.9	-54.9			57.4	575.5	84.0	21.4	1.000013
75900.0	35.8	-54.9			57.1	575.6	84.7	21.6	1.000013

STATION ALTITUDE 4051.00 FT, T MSL  
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TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup>	SOUND METER KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
70000.0	35.6	-54.8	56.8	575.7	85.4	21.6	1.000013	
70100.0	35.4	-54.7	56.5	575.8	86.1	22.0	1.000013	
70200.0	35.3	-54.6	56.2	575.9	86.7	22.2	1.000013	
70300.0	35.1	-54.6	55.9	576.0	87.4	22.4	1.000012	
70400.0	34.9	-54.5	55.7	576.1	88.0	22.7	1.000012	
70500.0	34.8	-54.4	55.4	576.2	88.2	22.7	1.000012	
70600.0	34.6	-54.3	55.1	576.3	88.3	22.8	1.000012	
70700.0	34.4	-54.3	54.8	576.4	88.3	22.8	1.000012	
70800.0	34.3	-54.2	54.5	576.5	88.3	22.9	1.000012	
70900.0	34.1	-54.1	54.3	576.6	88.3	22.9	1.000012	
71000.0	34.0	-54.0	54.0	576.7	88.3	22.9	1.000012	
71100.0	33.8	-54.0	53.9	576.8	88.3	23.0	1.000012	
77200.0	33.6	-53.9	53.4	576.9	88.3	23.0	1.000012	
77300.0	33.5	-53.8	53.2	577.0	88.4	23.1	1.000012	
77400.0	33.5	-53.7	52.9	577.1	88.4	23.1	1.000012	
77500.0	33.2	-53.7	52.6	577.2	88.4	23.2	1.000012	
77600.0	33.0	-53.6	52.4	577.3	88.4	23.2	1.000012	
77700.0	32.9	-53.5	52.1	577.4	88.4	23.2	1.000012	
77800.0	32.7	-53.4	51.8	577.4	88.5	23.3	1.000012	
77900.0	32.5	-53.4	51.6	577.5	88.5	23.3	1.000011	
78000.0	32.4	-53.3	51.3	577.6	88.6	23.3	1.000011	
78100.0	32.2	-53.2	51.1	577.7	88.7	23.4	1.000011	
78200.0	32.1	-53.2	50.8	577.8	88.9	23.4	1.000011	
78300.0	31.9	-53.1	50.5	577.9	89.0	23.4	1.000011	
78400.0	31.8	-53.0	50.3	578.0	89.1	23.4	1.000011	
78500.0	31.6	-52.9	50.0	578.1	89.2	23.5	1.000011	
78600.0	31.5	-52.9	49.8	578.2	89.3	23.5	1.000011	
78700.0	31.3	-52.8	49.5	578.3	89.4	23.5	1.000011	
78800.0	31.2	-52.7	49.3	578.4	89.5	23.5	1.000011	
78900.0	31.0	-52.6	49.0	578.5	89.7	23.6	1.000011	
79000.0	30.9	-52.6	48.8	578.6	89.8	23.6	1.000011	
79100.0	30.7	-52.5	48.5	578.7	89.9	23.6	1.000011	
79200.0	30.6	-52.4	48.3	578.8	90.0	23.6	1.000011	
79300.0	30.5	-52.3	48.1	578.9	90.1	23.6	1.000011	
79400.0	30.3	-52.3	47.8	579.0	90.0	23.5	1.000010	
79500.0	30.2	-52.2	47.6	579.1	90.0	23.5	1.000010	
79600.0	30.0	-52.1	47.3	579.2	89.9	23.5	1.000010	
79700.0	29.9	-52.0	47.1	579.3	89.9	23.4	1.000010	
79800.0	29.8	-51.9	46.9	579.5	89.9	23.4	1.000010	
79900.0	29.6	-51.8	46.6	579.6	89.8	23.3	1.000010	

GEOGRAPHIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

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GEODETIC COORDINATES  
33.167112 LAT DEG  
106.49511 LONG DEG

TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	PERCENT HUMIDITY	DENSITY GM/CUBIC METER	WIND SPEED KNOTS	WIND DIRECTION DEGREES (TN)	WIND DATA REFRACTION
80100.0	29.5	-51.7	40.4	579.7	89.6	23.3	1.000010
80100.0	29.4	-51.6	46.2	579.9	89.6	23.2	1.000010
80200.0	29.2	-51.5	45.9	580.0	89.7	23.1	1.000010
80300.0	29.1	-51.4	45.7	580.1	89.7	23.1	1.000010
80400.0	29.0	-51.3	45.5	580.2	89.6	23.0	1.000010
80500.0	28.8	-51.2	45.2	580.4	89.6	23.0	1.000010
80600.0	28.7	-51.1	45.0	580.5	89.6	22.9	1.000010
80700.0	28.6	-51.0	44.8	580.6	89.5	22.9	1.000010
80800.0	28.4	-50.9	44.6	580.4	89.5	22.9	1.000010
80900.0	28.3	-50.8	44.3	580.9	89.5	22.9	1.000010
81000.0	28.2	-50.7	44.1	581.0	89.5	22.9	1.000010
81100.0	28.0	-50.6	43.9	581.2	89.6	22.9	1.000010
81200.0	27.9	-50.5	43.7	581.3	89.6	22.9	1.000010
81300.0	27.8	-50.4	43.5	581.4	89.6	22.9	1.000010
81400.0	27.7	-50.3	43.2	581.6	89.6	22.9	1.000010
81500.0	27.5	-50.2	43.0	581.7	89.6	22.9	1.000010
81600.0	27.4	-50.1	42.6	581.8	89.6	22.9	1.000010
81700.0	27.3	-50.0	42.0	582.0	89.6	22.9	1.000009
81800.0	27.2	-49.9	42.4	582.1	89.6	22.9	1.000009
81900.0	27.0	-49.8	42.2	582.2	89.7	22.9	1.000009
82000.0	26.9	-49.7	41.9	582.4	89.7	22.9	1.000009
82100.0	26.8	-49.6	41.7	582.5	89.7	23.0	1.000009
82200.0	26.7	-49.5	41.5	582.6	89.7	23.0	1.000009
82300.0	26.5	-49.4	41.3	582.8	89.4	22.8	1.000009
82400.0	26.4	-49.3	41.1	582.9	89.2	22.7	1.000009
82500.0	26.3	-49.2	40.9	583.0	88.9	22.6	1.000009
82600.0	26.2	-49.1	40.7	583.2	88.7	22.4	1.000009
82700.0	26.1	-49.0	40.5	583.3	88.4	22.3	1.000009
82800.0	25.9	-48.9	40.3	583.4	88.1	22.2	1.000009
82900.0	25.8	-48.8	40.1	583.6	87.9	22.1	1.000009
83000.0	25.7	-48.7	39.9	583.7	87.6	21.9	1.000009
83100.0	25.6	-48.6	39.7	583.8	87.3	21.8	1.000009
83200.0	25.5	-48.5	39.5	584.0	87.0	21.7	1.000009
83300.0	25.4	-48.4	39.3	584.1	86.8	21.6	1.000009
83400.0	25.3	-48.3	39.1	584.2	86.5	21.4	1.000009
83500.0	25.1	-48.2	38.9	584.4	86.2	21.3	1.000009
83600.0	25.0	-48.1	38.7	584.5	85.9	21.2	1.000009
83700.0	24.9	-48.0	38.5	584.6	85.6	21.2	1.000009
83800.0	24.8	-47.9	38.3	584.7	86.2	21.3	1.000009
83900.0	24.7	-47.8	38.1	584.9			

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TABLE 11 CONT'D

GEOMETRIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	INTENSITY 6M QUADRANT	SPEED OF WIND KNOTS	WIND DIRECTION, DEGREES FROM NORTH	INDEX OF REFRACTION	
								GEODETIC COORDINATES 33.16712 LAT DEG 106.49511 LON DEG	
84000.0	24.6	-47.7			37.9	585.0	87.0	21.4	1.000008
84100.0	24.4	-47.6			37.7	585.1	87.4	21.5	1.000008
84200.0	24.3	-47.5			37.6	585.3	87.7	21.6	1.000008
84300.0	24.2	-47.4			37.4	585.4	88.1	21.7	1.000008
84400.0	24.1	-47.2			37.2	585.5	88.5	21.8	1.000008
84500.0	24.0	-47.1			37.0	585.7	88.8	21.9	1.000008
84600.0	23.9	-47.0			36.8	585.8	89.2	22.0	1.000008
84700.0	23.8	-46.9			36.6	585.9	89.6	22.1	1.000008
84800.0	23.7	-46.8			36.4	586.1	89.9	22.3	1.000008
84900.0	23.6	-46.7			36.3	586.2	90.3	22.4	1.000008
85000.0	23.5	-46.6			36.1	586.3	90.6	22.5	1.000008
85100.0	23.4	-46.5			35.9	586.5	91.0	22.6	1.000008
85200.0	23.2	-46.4			35.7	586.6	91.2	22.9	1.000008
85300.0	23.1	-46.3			35.5	586.7	91.3	23.3	1.000008
85400.0	23.0	-46.2			35.4	586.9	91.5	23.7	1.000008
85500.0	22.9	-46.1			35.2	587.0	91.6	24.1	1.000008
85600.0	22.8	-46.0			35.0	587.1	91.8	24.5	1.000008
85700.0	22.7	-45.9			34.9	587.2	91.9	24.9	1.000008
85800.0	22.6	-45.8			34.7	587.4	92.1	25.4	1.000008
85900.0	22.5	-45.7			34.5	587.5	92.2	25.8	1.000008
86000.0	22.4	-45.6			34.3	587.6	92.3	26.2	1.000008
86100.0	22.3	-45.5			34.1	587.8	92.4	26.6	1.000008
86200.0	22.2	-45.4			34.0	587.9	92.6	27.0	1.000008
86300.0	22.1	-45.3			33.8	588.0	92.7	27.4	1.000008
86400.0	22.0	-45.2			33.6	588.2	92.8	27.9	1.000007
86500.0	21.9	-45.1			33.5	588.3	92.9	28.3	1.000007
86600.0	21.8	-45.0			33.3	588.4	93.0	28.7	1.000007
86700.0	21.7	-44.9			33.1	588.6	92.8	28.8	1.000007
86800.0	21.6	-44.8			33.0	588.7	92.1	28.7	1.000007
86900.0	21.5	-44.7			32.8	588.8	91.5	28.5	1.000007
87000.0	21.4	-44.6			32.6	588.9	90.9	28.4	1.000007
87100.0	21.3	-44.5			32.5	589.1	90.2	28.3	1.000007
87200.0	21.2	-44.4			32.3	589.2	89.6	28.1	1.000007
87300.0	21.1	-44.3			32.1	589.3	88.9	28.0	1.000007
87400.0	21.0	-44.2			32.0	589.5	88.2	27.8	1.000007
87500.0	20.9	-44.1			31.8	589.6	87.6	27.7	1.000007
87600.0	20.8	-44.0			31.7	589.7	86.9	27.6	1.000007
87700.0	20.7	-43.9			31.5	589.9	86.2	27.5	1.000007
87800.0	20.6	-43.8			31.3	590.0	85.5	27.4	1.000007
87900.0	20.5	-43.7			31.2	590.1	84.8	27.2	1.000007

STATION ALTITUDE 4051.00 FEET MSL  
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UPPER AIR DATA  
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 TABLE 11 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CMIC METER	WIND DATA		INDEX OF REFRACTION
					DIRECTION DEGREES (TIN)	SPEED KNOTS	
88000.0	20.4	-43.6	31.0	590.3	84.1	27.1	1.000007
88100.0	20.4	-43.5	30.9	590.4	83.4	27.0	1.000007
88200.0	20.3	-43.4	30.7	590.5			1.000007
88300.0	20.2	-43.3	30.6	590.6			1.000007
88400.0	20.1	-43.2	30.4	590.8			1.000007
88500.0	20.0	-43.1	30.3	590.9			1.000007
88600.0	19.9	-43.1	30.1	590.9			1.000007
88700.0	19.8	-43.0	30.0	591.0			1.000007
88800.0	19.7	-43.0	29.9	591.0			1.000007
88900.0	19.6	-43.0	29.7	591.0			1.000007
89000.0	19.5	-42.9	29.6	591.1			1.000007
89100.0	19.5	-42.9	29.4	591.1			1.000007
89200.0	19.4	-42.9	29.3	591.2			1.000007
89300.0	19.3	-42.9	29.2	591.2			1.000007
89400.0	19.2	-42.0	29.0	591.2			1.000006
89500.0	19.1	-42.0	28.9	591.3			1.000006
89600.0	19.0	-42.0	28.8	591.3			1.000006
89700.0	18.9	-42.0	28.6	591.4			1.000006
89800.0	18.9	-42.0	28.5	591.4			1.000006
89900.0	18.8	-42.0	28.4	591.4			1.000006
90000.0	18.7	-42.0	28.2	591.5			1.000006
90100.0	18.6	-42.0	28.1	591.5			1.000006
90200.0	18.5	-42.0	28.0	591.5			1.000006
90300.0	18.4	-42.0	27.9	591.6			1.000006
90400.0	18.4	-42.0	27.7	591.6			1.000006
90500.0	18.3	-42.0	27.6	591.7			1.000006
90600.0	18.2	-42.0	27.5	591.7			1.000006
90700.0	18.1	-42.0	27.3	591.7			1.000006
90800.0	18.0	-42.0	27.2	591.8			1.000006

STATION ALTITUDE 4051.00 FEET SL  
22 JUN 83 1740 MDT  
ASCENSION NO. 90

MANDATORY LEVELS  
173000Z090  
JALLFN

TABLE 12

PRESSURE (EOPOTENTIAL MILLIBARS	FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DENSITY CENTIGRADS	RELATIVE HUMIDITY PERCENT	WIND DIA. DEGREES (TN)	WIND SPEED KNOTS
850.0	4915.	30.3	3.4	10.	135.6	11.1
800.0	6675.	25.6	3	19.	158.3	10.2
750.0	8517.	20.5	-1.1	22.	163.1	9.1
700.0	10452.	15.1	-3.3	28.	154.7	14.5
650.0	12490.	9.4	-4.1	38.	144.0	16.5
600.0	14645.	3.4	-5.9	51.	124.8	17.5
550.0	16936.	-3.1	-8.5	66.	115.4	18.3
500.0	19398.	-8.3	-14.7	60.	94.6	15.5
450.0	22013.	-14.4	-25.3	39.	96.7	17.9
400.0	24946.	-19.4	-23.0	73.	113.1	8.6
350.0	28158.	-27.0	-30.2	74.	119.2	2.0
300.0	31740.	-36.0	-40.0	66.	169.6	4.5
250.0	35802.	-46.5			147.6	12.1
200.0	40549.	-55.7			181.7	17.9
175.0	43337.	-55.7			189.0	22.9
150.0	46553.	-57.4			187.1	22.9
125.0	50255.	-66.3			157.3	21.5
100.0	54667.	-66.9			171.6	21.1
80.0	59092.	-65.4			138.3	10.7
70.0	61777.	-62.4			110.5	15.7
60.0	64868.	-62.8			105.7	18.2
50.0	68613.	-58.3			88.5	18.9
40.0	73236.	-56.6			85.0	21.5
30.0	79205.	-52.1			90.0	23.5
25.0	83193.	-48.1			86.1	21.3
20.0	88073.	-43.1				

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4,940.00 FT. MSL  
22 JUNE 63  
ASCENSION 160.

SIGNIFICANT DATA  
STATION

TABLE 13

PERIODIC CLOUDYNESS MILLIBARS	ALTIMETER INCHES	GEOMETRIC REFLECTION	TEMPERATURE AIR DEGREES CELSIUS	DEW POINT DEGREES CELSIUS	RELATIVE HUMIDITY PERCENT
3500.2	4040.0	29.7	6.4	-23.0	
3414.2	5250.2	27.9	6.0	-17.0	
3324.6	5863.4	27.1	-0.0	17.0	
774.4	7633.9	22.6	-2.2	19.0	
711.6	9737.9	16.7	-4.5	23.0	
701.6	10676.0	14.5	-5.3	25.0	
665.2	11184.5	11.9	-4.7	31.0	
633.8	12091.5	8.4	-4.7	39.0	
574.6	15637.0	1.1	-5.8	60.0	
541.4	17196.1	-3.3	-6.2	80.0	
537.4	17582.4	-4.2	-7.0	81.0	
524.2	17780.7	-5.5	-7.8	84.0	
508.0	19439.8	-8.5	-10.5	95.0	
481.6	20425.8	-10.0	-10.5	96.0	
471.0	26797.8	-10.7	-11.7	92.0	
461.2	21216.9	-12.2	-14.2	85.0	
451.6	21629.8	-13.3	-16.0	80.0	
441.8	22050.3	-14.5	-17.0	81.0	
421.0	23294.5	-15.0	-18.4	80.0	
421.8	23714.4	-16.2	-19.0	79.0	
407.0	25921.5	-19.4	-22.2	78.0	
355.4	27680.6	-24.8	-26.8	69.0	
326.4	29967.8	-30.5	-34.7	60.0	
301.0	31951.4	-35.2	-39.4	65.0	
286.6	33173.2	-39.1	-45.2	52.0	
255.0	35940.6	-46.2			
215.4	39309.1	-53.7			
201.0	40720.6	-54.2			
185.4	42547.1	-55.3			
165.4	44285.7	-56.8			
155.4	45434.9	-55.0			
152.0	46761.1	-57.3			
121.4	50420.2	-66.0			
111.0	53038.1	-66.7			
101.0	54940.0	-66.6			
86.4	56080.6	-66.9			
72.2	61483.2	-61.2			
71.6	62115.0	-62.5			
67.4	65130.2	-61.2			
57.6	66105.6	-60.3			

GEODETIC COORDINATES  
33°41'19.20 LAT DEG  
106°06'50.1 LONG DEG

STATION 111101 440.00 FT. SL  
22 CHL 63 1730 MDT  
ASSEMBLY NO. 26

SIGNIFICANT WAVE DATA

STALL 1000

GEOGRAPHIC COORDINATES  
33.41921 LAT DEG  
106.066501 LONG DEG

TABLE 13 CONT'D

PRESSURE GROUETIC ALTITUDE IN FEET MSL FEE	TEMPERATURE AIR DEGREES DEGREES CELSIUS	REL.HUM. PERCENT
50.0 67700.9	-59.6	
50.0 69033.1	-58.3	
30.0 76076.9	-52.4	
30.0 79063.7	-51.5	
20.0 83304.4	-47.0	
20.0 85471.0	-45.1	
20.0 88767.3	-43.0	
10.0 92937.7	-41.7	



STATION ALTITUDE 4,400.0 FT. T.SL  
22 JUN 1953  
ASCENS. 1.1 ft. 26

UPPER AIR DATA  
17,500 ft. 100%  
STALLION

GEODETIC COORDINATES  
30° 41' 19.20' LAT DEG  
106.66501 LONG DEG

TABLE 14 CONT'D

ALTIMETER AT STATION	PRESSURE MILLIBARS	AIR TEMPERATURE DEPRESST CENTIGRADE	PERCENT DEWPOINT	MEETER KNOBS	ST. ELEV. METER	WIND DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	REFRACTION INDEX OF
24500.0	990.6	-18.1	-20.9	78.4	557.5	107.0	3.3	1.000331
25000.0	990.3	-19.3	-22.2	78.0	549.0	163.0	2.6	1.000128
25500.0	984.2	-20.4	-23.4	76.4	540.0	619.7	201.2	4.1
26000.0	979.3	-21.4	-25.9	74.7	531.1	610.4	211.6	4.0
26500.0	970.3	-22.4	-25.9	73.0	522.4	617.1	219.2	5.6
27000.0	960.6	-23.4	-27.1	71.3	513.9	615.9	220.3	5.8
27500.0	951.1	-24.4	-28.4	69.6	505.4	614.6	221.2	6.0
28000.0	950.6	-25.6	-27.6	68.6	497.3	613.6	221.0	5.5
28500.0	946.2	-26.8	-30.9	67.9	489.4	611.6	220.4	4.9
29000.0	937.0	-28.1	-32.4	67.3	481.7	610.7	218.1	4.5
29500.0	931.9	-29.3	-33.5	66.6	474.0	608.4	213.7	4.2
30000.0	924.9	-30.6	-34.8	66.0	466.5	606.9	209.0	4.0
30500.0	915.0	-31.8	-36.1	65.7	459.9	605.3	209.2	4.2
31000.0	911.2	-33.1	-37.3	65.5	451.5	602.7	209.4	4.3
31500.0	904.6	-34.3	-38.5	65.2	444.2	602.1	224.2	3.7
32000.0	900.7	-35.6	-40.0	63.7	436.9	600.5	243.0	3.4
32500.0	891.6	-36.9	-41.8	59.5	429.0	598.9	240.0	3.4
33000.0	885.2	-38.1	-43.7	55.2	422.8	597.3	235.9	3.5
33500.0	879.0	-39.5	-46.0	49.4*	415.6	595.6	217.5	4.3
34000.0	872.3	-40.8	-49.3	39.3*	409.0	593.6	205.0	5.7
34500.0	866.7	-42.2	-53.0	29.2*	402.3	592.0	201.5	7.5
35000.0	860.9	-43.6	-57.7	19.1*	395.6	590.3	200.3	9.5
35500.0	855.0	-45.0	-64.0	8.9*	389.3	588.5	195.5	11.8
36000.0	849.3	-46.3	-66.3	30.3*	382.9	586.7	191.0	14.3
36500.0	843.6	-47.4	-68.6	376.0	585.3	184.3	16.9	
37000.0	839.0	-48.6	-70.6	369.2	583.8	176.1	19.8	
37500.0	832.5	-49.7	-72.0	362.5	582.4	175.3	22.5	
38000.0	826.2	-50.8	-74.2	355.9	580.9	173.8	25.1	
38500.0	821.6	-51.9	-76.6	349.5	579.5	175.1	26.0	
39000.0	815.0	-53.0	-78.7	343.2	578.0	177.1	26.5	
39500.0	811.9	-53.8	-80.0	336.4	577.0	178.4	27.2	
40000.0	805.9	-53.9	-80.0	328.8	576.8	179.5	28.0	
40500.0	802.1	-54.1	-80.0	321.4	576.6	181.1	28.7	
41000.0	797.4	-54.4	-80.0	314.2	576.2	182.0	29.5	
41500.0	792.7	-54.7	-80.0	307.3	575.8	184.5	28.3	
42000.0	788.2	-55.0	-80.0	300.5	575.4	186.5	26.4	
42500.0	783.8	-55.3	-80.0	293.9	575.0	186.1	24.6	
43000.0	779.5	-55.7	-80.0	287.5	574.6	183.1	22.9	
43500.0	775.2	-56.1	-80.0	281.3	573.9	182.2	22.3	
44000.0	771.1	-56.6	-80.0	275.4	573.4	184.0	22.8	

\* At LAST ONE SIGHT ON ALL THE UNKNOWN VARIATION WAS USED IN THE INT. POLATION.

STATION ALTITUDE 9940.00 FT. LT MSL  
22 JUN 83 1730 MDT  
ASCENSLN NO. 26

UPPER AIR DATA  
173000ZC  
STATION

TABLE 14 CONT'D

GEOPOTENTIAL ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES, CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUFT	SPEED OF WIND (IN)	WIND DATA DIR/GEOST (IN)	SPEED KNOTS	INDEX OF REFRACTION
44500.0	167.1	-46.5			260.6	573.5	186.3	23.4	1.000000
45200.0	169.3	-55.7			261.3	574.1	189.4	24.4	1.000058
45900.0	159.3	-55.1			264.5	575.3	190.6	24.4	1.000057
46000.0	159.5	-6.0			249.5	574.1	188.3	22.4	1.000056
46500.0	151.9	-6.8			244.0	573.0	185.6	20.4	1.000054
47000.0	146.3	-57.9			239.9	571.6	183.0	17.2	1.000053
47500.0	144.7	-59.1			235.4	570.0	179.1	14.1	1.000052
48000.0	141.2	-60.2			231.0	568.4	173.7	13.4	1.000051
48500.0	137.0	-61.4			226.7	569.9	168.1	13.3	1.000050
49000.0	134.4	-62.6			222.4	565.3	165.3	13.9	1.000050
49500.0	131.2	-63.0			218.3	565.7	164.5	14.8	1.000049
50000.0	129.1	-65.0			214.2	562.1	165.9	15.1	1.000048
50500.0	124.9	-66.0			210.1	560.7	169.3	14.8	1.000047
51000.0	121.8	-66.2			205.0	560.5	170.4	14.8	1.000046
51500.0	118.8	-65.3			200.1	560.3	168.6	15.1	1.000045
52000.0	115.9	-66.4			195.2	560.1	167.5	15.5	1.000043
52500.0	115.0	-66.6			190.5	560.0	167.7	16.2	1.000042
53000.0	110.2	-66.7			186.0	559.8	169.0	16.8	1.000041
53500.0	107.5	-66.7			181.3	559.8	172.5	17.4	1.000040
54000.0	104.8	-66.6			176.6	559.8	174.5	18.1	1.000039
54500.0	102.2	-66.6			172.4	559.9	174.3	18.6	1.000038
55000.0	99.7	-66.6			168.2	559.9	174.8	18.6	1.000037
55500.0	97.2	-66.7			164.0	559.8	178.0	16.6	1.000037
56000.0	94.8	-66.7			160.0	559.8	181.9	14.7	1.000036
56500.0	92.5	-66.7			156.1	559.7	183.5	12.1	1.000035
57000.0	90.2	-66.8			152.3	559.8	185.9	9.5	1.000034
57500.0	88.0	-66.8			148.5	559.6	175.3	9.1	1.000033
58000.0	85.9	-66.9			144.9	559.5	161.9	9.8	1.000032
58500.0	82.7	-66.2			140.9	560.4	154.6	10.7	1.000031
59000.0	81.6	-65.4			136.9	561.0	151.3	11.5	1.000030
59500.0	79.6	-64.5			133.0	562.7	147.5	12.0	1.000030
60000.0	77.7	-63.7			129.2	563.6	140.1	11.8	1.000029
60500.0	75.8	-62.9			125.6	565.0	133.0	11.8	1.000028
61000.0	73.9	-62.6			122.0	566.1	130.5	11.7	1.000027
61500.0	72.1	-61.2			118.6	567.1	128.9	11.7	1.000026
62000.0	70.4	-62.3			115.3	565.7	126.3	11.7	1.000026
62500.0	68.7	-62.3			113.5	566.6	124.9	11.8	1.000025
63000.0	67.0	-62.1			110.7	565.9	118.9	12.7	1.000025
63500.0	65.4	-61.9			107.9	566.2	111.6	14.3	1.000024
64000.0	63.8	-61.7			105.2	566.5	107.1	15.5	1.000023

STATION ALTITUDE 4,400 FEET HSL  
22 JUNE 1953 1730 MDT  
ASCENSION NO. 26

UPPER AIR DATA  
175040Z  
STATION  
TABLE 14 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOLAR CENTIGRADE	REL. HUM. PERCENT	REL. HUM. GM/CM <sup>3</sup>	SPEC. FLUID METER	DIR. FLUID KNOTS	WIND DATA IN DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION	GEOMETRIC COORDINATES 33.41920 LAT DEG 106.55501 LONG DEG
84500.0	62.3	-61.5			102.5	566.4	105.7	15.5	1.000023	
65000.0	60.0	-51.3			99.9	567.1	104.3	15.5	1.000022	
65500.0	59.3	-60.9			97.3	567.6	103.7	15.1	1.000022	
66000.0	57.9	-60.4			94.4	568.2	103.1	14.6	1.000021	
66500.0	56.5	-60.0			92.4	568.7	100.7	15.1	1.000021	
67000.0	55.2	-59.7			90.0	569.1	97.5	15.7	1.000020	
67500.0	53.8	-59.4			87.7	569.6	95.2	16.4	1.000020	
68000.0	52.6	-59.0			85.3	570.1	94.5	17.1	1.000019	
68500.0	51.3	-58.7			83.3	570.5	93.5	17.8	1.000019	
69000.0	50.1	-58.3			81.2	571.0	93.5	18.0	1.000018	
69500.0	49.9	-57.9			79.2	571.6	93.6	18.1	1.000018	
70000.0	47.8	-57.5			77.1	572.1	93.2	16.2	1.000017	
70500.0	46.6	-57.1			75.2	572.7	91.8	18.2	1.000017	
71000.0	45.5	-56.7			73.3	573.2	90.4	18.2	1.000016	
71500.0	44.5	-56.2			71.4	573.6	88.7	18.5	1.000016	
72000.0	43.4	-55.8			69.0	574.3	86.9	19.1	1.000015	
72500.0	42.4	-55.4			67.9	574.9	85.3	19.6	1.000015	
73000.0	41.4	-55.0			66.1	575.4	84.2	19.8	1.000015	
73500.0	40.5	-54.6			64.5	576.0	83.2	20.1	1.000015	
74000.0	39.5	-54.1			62.8	576.5	81.9	20.4	1.000014	
74500.0	38.6	-53.7			61.2	577.1	80.3	20.7	1.000014	
75000.0	37.7	-53.3			59.7	577.6	78.8	21.0	1.000013	
75500.0	36.8	-52.9			58.2	578.2	79.2	21.4	1.000013	
76000.0	35.9	-52.5			56.7	578.7	79.7	21.9	1.000013	
76500.0	35.1	-52.3			55.4	579.0	81.2	22.2	1.000012	
77000.0	34.3	-52.2			54.1	579.1	85.9	22.2	1.000012	
77500.0	33.5	-52.1			52.8	579.3	90.6	22.4	1.000012	
78000.0	32.7	-51.9			51.5	579.4	94.7	21.9	1.000011	
78500.0	32.0	-51.8			50.3	579.6	98.6	20.8	1.000011	
79000.0	31.2	-51.7			49.1	579.7	102.9	19.8	1.000011	
79500.0	30.5	-51.6			48.0	579.9	105.2	19.5	1.000011	
80000.0	29.8	-51.5			46.8	580.2	106.6	19.3	1.000010	
80500.0	29.1	-50.7			45.6	581.1	108.5	19.1	1.000010	
81000.0	28.5	-50.0			44.4	581.9	103.8	19.7	1.000010	
81500.0	27.8	-49.4			43.3	582.8	99.4	20.5	1.000009	
82000.0	27.2	-48.7			42.2	583.6	94.9	21.2	1.000009	
82500.0	26.6	-48.1			41.1	584.5	89.1	21.7	1.000009	
83000.0	26.0	-47.4			40.1	585.3	83.6	22.5	1.000009	
83500.0	25.4	-46.8			39.1	586.1	79.8	22.0	1.000009	
84000.0	24.8	-46.1			38.1	586.6	78.1	22.4	1.000008	

LOCATION ALTITUDE 4,493.00 FT. T 1151  
22 JUNE 1950  
ASCENSION ISL.

WEATHER AIR DATA  
STATION 173000ZU

GEODETIC COORDINATES  
33.81920 LAT DEG  
106.66501 LONG DEG

TABLE 14 CONT'D

GEODETIC ALTITUDE FEET	PRESSURE IN MILLIBARS	TEMPERATURE IN DEGREES CENTIGRADE	REL. HUMID. PERCENT	SHFT OF WIND KNOTS	WIND DATA DEGREES FROM NORTH	REFDG REFRACTION INDEX
84500.0	24.2	-16.0		37.2	76.4	22.0
85000.0	25.7	-15.5		36.3	74.6	21.6
85500.0	25.2	-15.1		35.4	75.2	20.6
86000.0	25.7	-14.8		34.9	75.9	19.7
86500.0	25.1	-14.4		35.7	76.6	18.8
87000.0	21.7	-14.1		32.9	81.3	18.9
87500.0	21.2	-13.8		32.2	67.5	19.6
88000.0	20.7	-13.5		31.4	93.1	20.6
88500.0	20.2	-13.2		30.7	97.6	21.6
89000.0	19.6	-12.9		30.0	100.4	22.0
89500.0	19.1	-12.8		29.3	103.1	22.5
90000.0	19.9	-12.6		26.6	591.5	1.000007
90500.0	19.5	-12.5		26.0	591.5	1.000006
91000.0	19.1	-12.3		27.3	591.7	1.000006
91500.0	17.7	-12.1		26.7	592.1	1.000006
92000.0	17.3	-12.0		26.1	592.3	1.000006
92500.0	16.9	-11.8		25.5	592.5	1.000006

STATION ALTIMUTH 4,440.00 FEET MSL  
22 JUN 83 1730 PDT  
ASCENSION NO. 26

MANDATORY LEVELS  
1730000020  
STATION

TABLE 15

PRESSURE (MILLIBARS)	TEMPERATURE (DEGREES CENTIGRADE)	WIND DIRECTION (DEGREES TN)	WIND SPEED (KNOTS)
WIND POTENTIAL	AIR CENTIGRADE	W.H.M. PERCENT	W.H.M. PERCENT
850.0	494.4	29.7	6.0
800.0	669.8	25.0	-1.0
750.0	853.6	20.1	-3.1
700.0	1046.7	14.5	-5.3
650.0	1251.6	9.9	-4.6
600.0	1466.4	3.8	-5.1
550.0	1645.9	-2.7	-6.1
500.0	1941.4	-8.5	-9.2
450.0	2207.2	-14.0	-16.0
400.0	2491.2	-19.4	-22.4
350.0	2817.8	-26.2	-30.5
300.0	3179.1	-35.2	-39.4
250.0	3586.5	-46.2	65.0
200.0	4062.6	-54.2	65.0
175.0	4342.4	-56.1	76.0
150.0	4663.9	-57.3	76.0
125.0	5034.3	-66.0	82.2
100.0	5477.5	-66.6	82.2
80.0	5920.7	-64.7	82.2
70.0	6190.8	-62.5	82.2
60.0	6503.8	-61.1	82.2
50.0	6877.9	-58.3	82.2
40.0	7342.9	-54.4	82.2
30.0	7952.9	-51.5	82.2
25.0	8345.7	-46.5	82.2
20.0	8835.7	-43.0	82.2

\*\* AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

END

FILMED

9-83

DTIC